CAMA

LAND USE PLAN UPDATE

FOR

OCEAN ISLE BEACH

1981

PLANNING DESIGN CONSULTING TCA

Talbert , Cox & Associates , Inc.

THIS DOCUMENT HAS BEEN PREPARED FOR THE RESIDENTS

OF

OCEAN ISLE BEACH, NORTH CAROLINA

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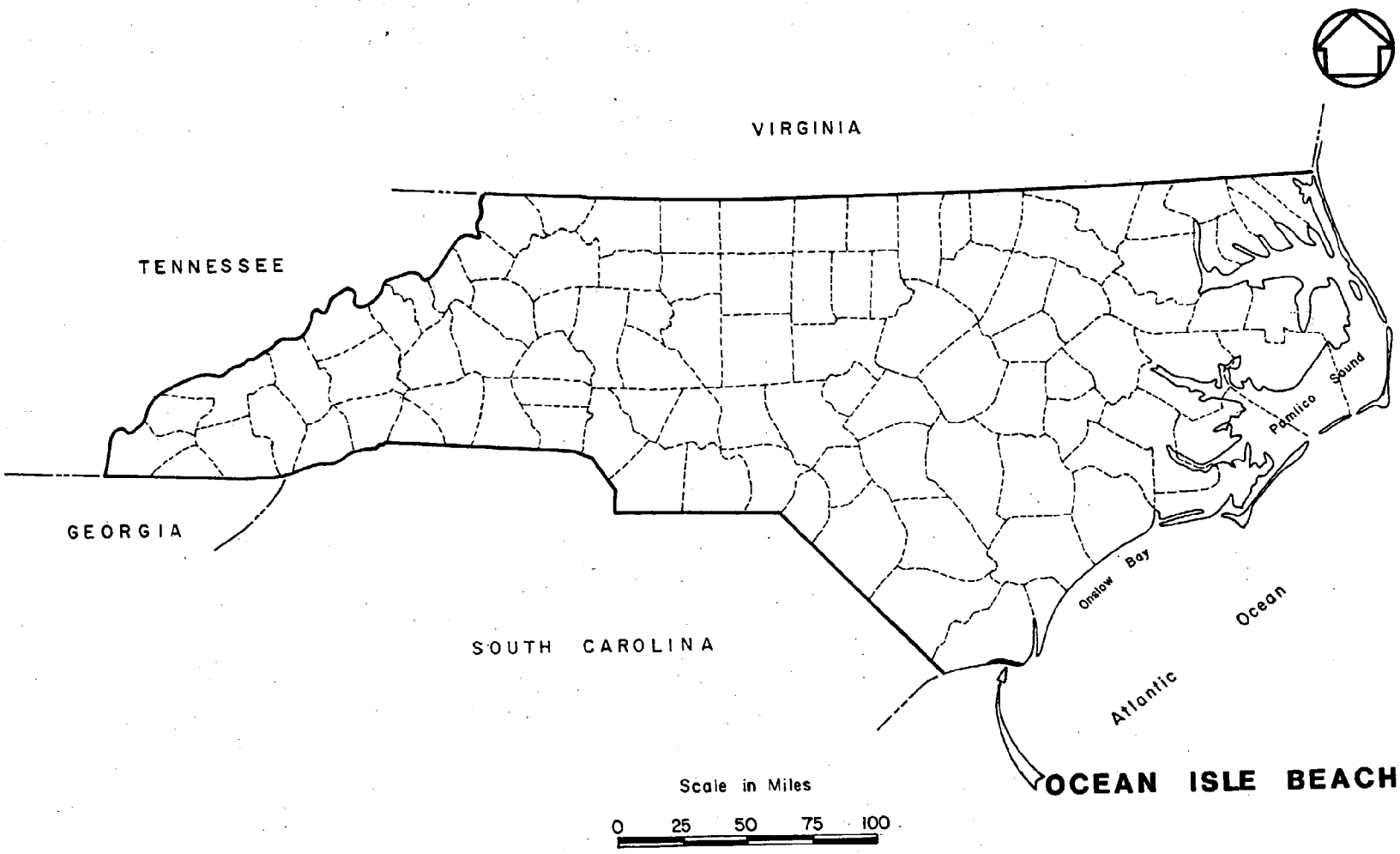
The preparation of this report was financially aided through a federal grant from the National Oceanic and Atmospheric Administration. The grant was made through the North Carolina Department of Natural Resources and Community Development.


VIRGINIA
TENNESSEE
GEORGIA
SOUTH CAROLINA
Pamlico Sound
Onslow Bay
Atlantic Ocean
OCEAN ISLE BEACH
Scale in Miles
0 25 50 75 100

MAP 1

OCEAN ISLE BEACH, NORTH CAROLINA
LAND USE PLAN

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A. ESTABLISHMENT OF INFORMATION BASE:

The development of a Land Use Plan for Ocean Isle Beach represents, perhaps, the most significant policy formulation effort in the history of the community. Ocean Isle Beach, a relatively "young" community, was incorporated as a Town in 1959 with the 1960 U.S. Census reporting only 5 permanent residents. By the 1970 census, however, the then 11 year old community increased by 73 permanent residents to a total of 78. The 1980 preliminary U.S. Census figure show the Town's population to be 180. Because of the Town's attraction as a clean, family-oriented beach, Ocean Isle Beach's population will likely continue to grow.

Population growth, which requires an increasing utilization of land and other resources, can lead to undesirable consequences if unregulated or uncontrolled. Ocean Isle Beach, through the development of this policy document, and the enforcement of existing local controls, is seeking to avoid the negative results of unmanaged growth. The Town itself is basically a seasonal, residential resort community. The community consists of a six-mile long island, located off the Brunswick County Coast and separated from the mainland by the Atlantic Intracoastal Waterway. The island runs from west to east, being bordered on the south by the Atlantic Ocean and to the north by the Intracoastal Waterway.

In 1976, when the coastal counties were first required to prepare land use plans under the Coastal Area Management Act (CAMA), Ocean Isle agreed for Brunswick County to prepare the Town's Plan as part of the County's Land Use Plan. However, many of the detailed analyses contained in the 1976 plan were specific for the County, and generalized for Ocean Isle Beach.

Thus, in 1981, the Town, in recognition of its growing population and subsequent increased service demands, elected to formulate its own land development policies--within the bounds of the Coastal Area Management Act.

Because of the generalized nature of the information about Ocean Isle contained in the 1976 Brunswick County Plan, most of the information base for this new plan had to be redeveloped. The 1976 Brunswick County Plan contained some useful information, but not enough for a complete information update. Mapping of existing land uses in 1976 and the designation of interim Areas of Environmental Concern were very useful. Most of the data presented in this report was developed through field surveys of the Town by Talbert, Cox & Associates, Inc., engineers and planners. Additional information was obtained through discussions with Town officials and representatives of other agencies such as the Wilmington Regional Office of the North Carolina Department of Natural Resources and Community Development, the Cape Fear Council of Governments, the Brunswick County Planning Department and the Demographic Section of the North Carolina Department of Administra-

tion's Office of State Budget. The use of secondary sources such as written policies, plans, and other documents, also proved helpful.

The analysis of existing conditions and trends for Ocean Isle Beach implied several major conclusions:

-- Population increases, both seasonal and permanent, as well as urbanized development is likely to continue.

-- The major possible constraints to that development are the provision of adequate water and waste water disposal facilities, and,

-- If adequate water and sewer services are provided, and development continues to occur, the Town will have to strictly comply with existing federal, State and its own land use controls in order to maintain sound environmental management practices.

B. PRESENT CONDITIONS:

1. POPULATION:

Since Ocean Isle Beach is largely a summer resort community, the Town experiences a wide fluctuation of population according to the season. The year-round permanent population has always been and remains relatively small. The past two decades however, have seen a dramatic increase in the number of year-round permanent residents. The most dramatic increase occurred between 1960 and 1970. The Town was incorporated in 1959 and made its first showing in the U. S. Census in 1960 with a permanent population of only five people. In 1970, however, the U. S. Census showed a year-round population of 78 people. Numerically, this was an increase of only 73 people. But in terms of percentages, the 1960 to 1970 growth represented a 1,460 percent increase, which was substantial. The growth trend for permanent residents also carried over into the 1970's, when the permanent population again more than doubled, growing from 78 to 180. The 1970 to 1980 growth rate represented an increase of 130.08 percent--an average increase of about 13 percent per year. Ocean Isle's rate of population growth during the decade from 1970 to 1980, according to preliminary 1980 figures, was nearly three times the rate of Brunswick County's--130.08 percent compared to 45.9 percent. Listed in the following Table I are the population figures for Ocean Isle Beach and Brunswick County, as well as comparative growth rates.

TABLE I. Population Growth Rate Comparison

	Population		Rate of Income (%)	
YEAR	Ocean Isle	Brunswick Co.	Ocean Isle	Brunswick Co.
1950	N/A	19,238	N/A	N/A
1960	5	20,278	N/A	5.4
1970	78	24,223	1,460.0	19.5
1980	180	35,349	130.8	45.9

1980 Census: Final Field Count (Preliminary Figures), provided by N. C. Department of Administration

The growth in the Town's population was spurred initially by its attraction as a pleasant second-home or vacation-home location. Retirees also became more and more attracted to Ocean Isle Beach and more businesses developed, with some business proprietors deciding to locate permanently in the Town.

The composition of the population, in terms of age, consists mostly of young to middle-age adults and retirees. In fact, the Town Clerk estimated that only 12 to 15 school-age children reside within the Town. As the population increases, however, with more younger families choosing to permanently locate in Ocean Isle, the number of school-age children will also likely increase.

Ocean Isle Beach permanent population currently does not contain any racial minorities. As the overall population continues to grow, it is feasible that the future population will include members of minority groups.

Although the number of year-round residents is only 180, the summer population rises sharply to 6,000 or 7,000 people. The year-round residents live in only 10 percent of the available housing units, while 90 percent of the Town's housing consists of vacation homes or second-homes. Many of the owners of these homes come to live on the island during the summer, and/or make the units available for rent to the general public when not being used privately.

Currently, the island has four multi-family developments, all containing some year-round residents. Another 24-unit multi-family complex was under construction as of the writing of this report, and the Town was reviewing a proposal for a 54-unit multi-family project. It is logical, therefore, to assume that when these units are complete and occupied, that some of the occupants will remain in the Town all year-round.

2. ECONOMY:

The economy of Ocean Isle Beach is dependent upon tourism and travel. Ocean Isle Beach lies between two other beach com-

munities, Sunset Beach and Holden Beach, and borders the Intracoastal Waterway. The Town features white, powdered sand beaches, a gentle surf, quietude and privacy. These attractions, as well as the opportunity for surf and pier fishing, offer relaxing vacations to thousands of visitors during the summer months each year.

Ocean Isle's economic base consists mainly of services such as motels, cottage rentals, restaurants, gifts and specialty shops, and privately-owned recreational facilities such as water slides and mini-golf courses. All of these services are generally geared toward the traveling and vacationing public and as such, are dependent upon the seasonal flow of visitors for their financial sustenance. The seasonal population influx also produces what is, by and large, a seasonal economy. This does not necessarily imply that the business community somehow vanishes or disappears during the "off-season" months, but it is true that most of the businesses in the Town do not remain open all year-round. Obviously, some stores, shops, and service stations must remain open to serve the year-round population.

The service-based economy of Ocean Isle consists almost totally of commercial activities. There is no agricultural or farming activity in the Town; neither are there any manufacturing or industrial interests in Ocean Isle. Of increasing importance to the local economy, is the steady growth in real estate development and sales. There are four major multi-family developments currently in the Town.

The continuing real estate development and sales in the Town will most likely foster a continual growth in the number of permanent residents. As permanent residents increase, the demand for local services also increase. As local commercial services and activities increase, the Town will witness a more stable expansion of its economic base. Current trends indicate that the permanent population of Ocean Isle will steadily increase. (See Part E.1, Page 31).

Employment in Ocean Isle, like the population and the economy, is also seasonal. From a peak of about 100 persons, who work in the various stores, shops, motels, and restaurants during the height of the tourist season, employment drops 70 percent to around 30 persons during the off-season. The Town of Ocean Isle employs 10 people year-round, so the total non-government employment in the Town in the off-season is about 20 people.

The following Table 2 contains a listing of the Town's businesses. A few of the residents are engaged in minor commercial fishing. This activity, however, is relatively small, and plays no significant role in the Town's economy.

TABLE 2. Commercial Establishments In Ocean Isle Beach

1. Causeway Motel
2. The "Winds" Motel and Vacation Apartments
3. Ocean Isle Motel
4. Sloan Realty
5. Ocean Isle Shopping Center
6. Ocean Isle Party Mart
7. Betty Williamson (Hair Salon, Realty Agency, Apparel Shop) Office Building
8. Causeway Realty
9. Ocean Isle Putt-Putt Miniature Golf
10. Causeway Putt-Putt Miniature Golf
11. Sea-Shack Clothing Store
12. ABC Store
13. Sheffield Grocery and Gas
14. Exxon Marina
15. Shell Service Station
16. Island Realty
17. Shoreline Beauty Salon
18. Islander Restaurant
19. Ocean Isle Water Slide
20. The Galley Supermarket
21. The Beach Shop (Supermarket and Beachwear)
22. Ocean Isle Deli
23. The Breakers Game Center
24. Ocean Isle Realty
25. Cooke Realty
26. Ocean Isle Grill, Pier and Amusement Center

3. IMPACT OF SEASONAL POPULATION:

Since the seasonal population increases so sharply (ranging from 6,000 to 7,000 people from 180) naturally, the impact is substantial. The most significant impacts are upon the Town's economy and its water system.

During the seasonal peak of visitors, the Town's water capacity can be taxed heavily. Up until late 1980, water for the Town came from four wells which were located on the island. These wells had an estimated total 24-hour pumping capacity of 288,000 GPD, with a design capacity of one-half that amount, or 144,000 GPD, (according to guidelines of the North Carolina Department of Human Resources). Peak usage, however, at an estimated population of 6,000 was projected to be 432,000 GPD during the summer of 1980, by the North Carolina Department of Natural Resources and Community Development's Division of Environmental Management, Wilmington Regional Office. In fact, during the July 4, 1980, weekend, because of near-drought conditions and high demand, the Town nearly ran out of water. The Town was quick to recognize this problem, and initiated a strategy to increase its water supply. By the summer of 1981, Ocean Isle will have a total of 13 wells with an estimated total pumping capacity of 986,400 GPD. The

design capacity would be 493,200 GPD. With this increased capacity, the Town will be able to avoid the water shortages it experienced in 1980, provided rainfall is adequate to replenish the wells.

Since the Town currently has no central sewage treatment facilities, all effluent is now handled by on-site systems, (i.e., septic tanks). Concern has been raised about possible effluent infiltration into the potable ground water supply as a result of the seasonal population increases. However, no evidence of such infiltration has been detected. Although the soils in the area apparently have been able to handle even the seasonal load of effluent, the demands of continued real estate development and tourism may require consideration of some future waste treatment alternatives.

4. EXISTING LAND USE ANALYSIS:

a. Current Conditions:

During the preparation of the 1976 Brunswick County Land Use Plan, the existing land uses in Ocean Isle were mapped, showing the Town's development pattern. An updated existing land use map prepared by Talbert, Cox & Associates, Inc., for this current plan, revealed a similar overall development and land utilization pattern as was noted in 1976. However, the island has witnessed significant increases in the utilization of land for both residential and non-residential purposes. Multi-family developments such as apartments have accounted for a major portion of the residential development. Single-family unit development has also increased significantly. As a map of the Town shows, the residential development patterns are influenced largely by the man-made finger canals which provide the residents with access to the Intracoastal Waterway. (See Attached Land Use Map, Map 4).

Commercial land utilization in Ocean Isle also increased between 1976 and 1981, with the commercial development pattern remain ing about the same. Most of the commercial developments are located along N. C. Highway 904, which is the island's only access road to the mainland. This pattern is regarded as a land use norm, since commercial services designed to serve the general and traveling public, are usually best located along major thoroughfares as opposed to being in concentrated residential areas. This area is also zoned for commercial activities by the Town's zoning ordinance. There are, however, some minor commercial developments such as convenience shopping areas, on the main part of the island. Ocean Isle's jurisdiction, including beaches, marshes, and surrounding waters, encompasses approximately 1,950 acres. Of this total, only 1,030 acres, (53%), are considered developable. These 1,030 acres were classified as "Transition" lands in the 1976 Brunswick County Land Use Plan. The remaining 920 acres consisting mostly of surrounding waters, marshes, and beaches, were then classified as "Conservation" Lands. Although the Town has experienced a relatively rapid conversion of undeveloped land into "developed" land, only a small portion of the total developable

areas has been used. Table 3, below shows the developed land use by categories and acreage totals.

TABLE 3 Existing Land Uses In Ocean Isle Beach

Use/Category	Acreage	Percent of Total Developable (1,030 ac.)
Single Family	105	10.2
Multi-Family	25	2.4
Public/Semi-Public	5	.5
Commercial	9	.9
Office and Institutional	2	.2
Transportation	45	4.4
Total	191	18.6%

Note that only 18.6 percent of the available developable land is currently being used. This means that less than one-fifth of the developable land has been developed thus far. From the standpoint of land availability alone, it would appear that Ocean Isle could sustain a significant amount of additional development. However, land availability alone is not the only factor determining the suitability of land for development.

There are no industrial uses within Ocean Isle and the Town has not actively sought industrial development. Town officials and citizens have expressed a desire to maintain Ocean Isle Beach's character as a quiet, relaxing tourist and vacation beach. It is felt that industrial development would be inconsistent as well as incompatible, with the retention of that character.

b. Significant Land Compatibility Problems:

The most significant land compatibility problem in Ocean Isle relates to waste water disposal and potable water supplies. The Town's water supply comes from 13 wells with 10 located on the island. Waste water disposal is handled completely by septic tanks. As development on the island increases, and more visitors frequent the area during vacation seasons, the demand for water will also substantially increase. Increased pressures are also placed on the septic systems for waste water disposal. However, since the effluent is being absorbed into the soil, and the potable water also comes from ground aquifers, these increased demands may also increase the possibility of groundwater contamination. To date, there has been no actual documentation of effluent infiltration into the groundwater supply on the island. The three wells on the mainland are located outside of the Town's jurisdiction in an undeveloped area.

c. Problems From Unplanned Development:

The seasonal population at Ocean Isle Beach has grown faster than the Town's developed water supply. During the extended drought conditions of the summer of 1980, when there was little rain to recharge the fresh water aquifers, the Town nearly ran

out of water. In 1980 the Town was operating only four wells, which proved to be inadequate in meeting the demand for water. By the summer of 1981, however, the Town will have a total of 13 wells which should alleviate any potential water shortage problem, and provide adequate water supplies for a number of years to come.

Another potentially serious problem caused by high water demand and subsequent stress upon the wells, is related to the position of the aquifers from which the Town's water is pumped. Since Ocean Isle is an island, it is bordered on two sides by salt or brackish waters. These brackish waters infiltrate the island's subterrain and form a strata just underneath the freshwater aquifers which, prior to the three wells on the mainland, provided the Town its usable water supply. The fresh water supply depended heavily upon a hydrological equilibrium whereby the aquifers were being recharged (by rainfall, for example), at least at a rate equal to the rate it was being pumped. The hydrological equilibrium in such cases, also maintains a balance between the interface of fresh water and the salt water lying beneath it. During periods of extended drought, however, when rainfall is inadequate to recharge the fresh water aquifer equal to the pumping- out rate, the salt water can intrude up into the fresh water supply, causing some contamination of potable water. This happened to Ocean Isle during the summer of 1980, but not severely. The Town is anticipating growth and development to continue and has already taken steps to develop additional water resources.

d. Identification of Areas Experiencing or Likely to Experience Changes in Predominant Land Use:

The dominant land use patterns in Ocean Isle, as shown on the attached existing land use map, are projected to continue. The established land use conversion pattern, i.e., from "Transition" to "Developed" for residential purposes is likely to continue for sometime into the future.

e. Areas of Environmental Concern: (AEC):

In the 1976 Brunswick County Land Use Plan, there were several AECs proposed for Ocean Isle Beach. However, these areas were only interim areas and since that time the Coastal Resources Commission has adopted official Areas of Environmental Concern for all of coastal North Carolina. The final AEC's designated for the Town of Ocean Isle come under the Estuarine System grouping and the Ocean Hazard Area category. The AECs under the Estuarine System group for Ocean Isle Beach are:

1. Coastal Wetlands, which are defined as any salt marsh or other marsh subject to regular or occassional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial water sources), provided this shall not include hurricane or tropical storm tides. Coastal Wetlands also contain certain marsh plant species. In

Ocean Isle Coastal Wetlands occur generally in the northern portions of the island which are adjacent to the Intracoastal Waterway. The most substantial amount of wetlands is located in the northwest sector of the island between the Intracoastal Waterway and Old Sound Creek. Also included are the marshlands adjacent to the Intracoastal Waterway, and the land adjacent to the finger canals leading to the waterway. These areas are important because the marsh maintains the high productivity of fish and shellfish and the complex food chains which are typically found in the estuaries:

2. Estuarine Waters are defined as "all the water of the Atlantic Ocean within the boundary of North Carolina and all the water of the bays, sounds, rivers, and tributaries thereto seaward to the dividing line between coastal fishing waters and inland fishing waters" (N.C. G. S. 113A-113(b) (2). The Estuarine Waters are very important for a number of reasons, mainly because they serve as the birth place and nursery areas of many species of fish and shellfish. Estuarine Waters support the valuable commercial and sports fisheries of the coastal area which are comprised of estuarine-dependent species such as menhaden, flounder, shrimp, crabs, and oysters. These species must spend all or some part of their life cycle within the Estuarine Waters in order to mature and reproduce. The estuarine waters within Ocean Isle Beach's jurisdiction include the Intracoastal Waterway, the major inlets on either end of the island, (Shallotte Inlet on the east end, and Tubb's Inlet on the west end), and the finger canals located near the island's center.

3. Public Trust Areas, which are partially defined as all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of State jurisdiction; all natural bodies of water subject to measurable lunar tides and lands there under to the mean high mark; all navigable natural bodies of water and lands thereunder to the mean high water level or mean water level, as the case may be. In other words, Public Trust Areas are waters and adjacent lands, the use of which, benefits and belongs to the public. Public Trust Areas are used for both commercial and recreational purposes. In Ocean Isle Beach the Intracoastal Waterway, Tubbs Inlet, Shallotte Inlet, Ocean Beaches, and the Atlantic Ocean adjacent to the beaches are all Public Trust AECs. These areas support recreational uses such as swimming, boating, water skiing and sportsfishing and commercial fishing.

4. Estuarine Shorelines are defined as non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters for a distance of 75 feet inland. These areas are significant because development within the shorelines can influence the quality of estuarine life and is subject to the damaging process of shorefront erosion and flooding. The shorelines of the

Estuarine Waters described on Page 9, and 75 feet landward are the Estuarine Shorelines in Ocean Isle Beach.

Areas of Environmental Concern within the Ocean Hazard Areas category are those areas considered to be natural hazard areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or adverse effects of sand, wind and water, uncontrolled or incompatible development could unreasonably endanger life or property. Ocean Hazard areas include beaches, frontal dunes, inlet lands, and other areas in which geologic, vegetative and soil conditions indicate a substantial possibility of excessive erosion or flood damage. The three major Ocean Hazard areas are described below:

1. Ocean Erodible Area: This is the area of which there exists a substantial possibility of excessive erosion and significant shoreline fluctuation. The seaward boundary of this area is the mean low waterline. The landward extent of this area is determined as follows:

A. a distance landward from the first line of stable natural vegetation to the recession line that would be established by multiplying the long-term annual erosion rate, as most recently determined by the Coastal Resources Commission, times 30, provided that where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 60 feet landward from the first line of stable natural vegetation; and

B. a distance landward from the established recession line to the recession line that would be generated by a storm having a one percent chance or being equalled or exceeded in any given year.

The Ocean Erodible Area for Ocean Isle Beach extends 60 feet inland from the first line of vegetation. This area is also the building setback line in Ocean Isle. The rate of erosion in Ocean Isle has been estimated to be around two feet per year, making it one of the lowest erosion rates along the State's coast.

2. High Hazard Flood Area: This is the area subject to high velocity waters (including, but not limited to, hurricane wave wash) in a storm having a one percent chance of being equalled or exceeded in any given year, as identified as zone VI-30 on the flood insurance rate maps of the Federal Insurance Administration, U. S. Department of Housing and Urban Development. The 100-year flood elevation level for Ocean Isle Beach is 14 feet above mean sea level. The area with the greatest flood hazard potential extends along the ocean beach. The Town does participate in the Federal Flood Insurance Program.

3. Inlet Hazard Area: The Inlet Hazard Areas are those lands identified by the State geologist to have a substantial possibility of excessive erosion that are located adjacent to inlets.

This area shall extend landward from the mean low waterline a distance sufficient to encompass that area within which the inlet will, based on statistical analysis, migrate, and shall consider such factors as previous inlet territory, structurally weak areas near the inlet (such as an unusually narrow barrier island, an unusually long channel feeding the inlet, or an overwash area), and external influences such as jetties and channelization.

Ocean Isle Beach has two Inlet Hazard Areas, one located near the eastern and one near the western ends of the island. The largest Inlet Hazard Area is located on the eastern end of the island on land adjacent to the Atlantic Ocean and Shallotte Inlet. The other Inlet Hazard Area is located on the western tip of the Island, adjacent to the Atlantic Ocean and Tubbs Inlet.

In addition to the Ocean Erodible, Flood Aazard, and Inlet Hazard Areas, significant land forms such as ocean beaches and frontal dunes are also considered to be ocean hazards. Ocean beaches, which consists of the land area between the mean low waterline and the first line of vegetation, or where a significant change in elevation or slope alters the configuration of the land form, whichever is farther landward, occur all along Ocean Isle's southern border. There are also primary dunes within the Town's jurisdiction. However, because of height definitions, these would have to be determined on a case by case basis.

All development and development-related activity within the designated AEC's within Ocean Isle Beach, is currently regulated by the Coastal Area Management Act permit process.

5. Current Plans, Policies, and Regulations:

a. Transportation:

Ocean Isle has a Thoroughfare Plan, which was adopted June 8, 1981. Implementation of this plan is expected to facilitate traffic flows on the island, by making some of the east-west streets one way routes. A 200-foot wide strip of land, on which N. C. Highway 904 is built, provides the island with access to the mainland. At the point where N. C. 904 crosses the Intra- coastal Waterway, is a State-operated and maintained, single-lane swing span bridge. State Department of Transportation planners have developed proposals to replace the old bridge with a newly constructed span. It is projected that construction may begin in late 1981.

b. Community Facilities:

1. Water Distribution Plan: The Town's water source is currently based on 13 wells. Ocean Isle recognized the limitations of continued reliance upon well expansion on the island for long-term water supplies. A water system distribution plan was prepared for the Town by Boney and Associates, Consulting Engineers, with long-range plans of tying into the Brunswick County water

system. Presently, however, the County system does not extend to Ocean Isle and does not have the capacity to serve the Town. The Town is very much aware of the need to evaluate its long-range water plans because of continued growth in demand. This awareness led to the development of three new wells on the mainland, The new wells should assure Ocean Isle Beach of ample amounts of water beyond the current Planning period.

2. Waste Treatment Plans: Ocean Isle was included in a 1978 201 Facilities Plan for southwest Brunswick County. This plan, which showed a proposed waste treatment plan using land application methods, has not been implemented. A Preliminary Engineering Report, in reference to the 201 Plan, was prepared for Ocean Isle in 1979. This report showed a proposed collection system for the Town. Currently, funding is being sought to implement the sewage collection and treatment plans for the Town apart from the 201 Plan. Because of its particular growth and development problems, Ocean Isle would like to develop its own waste water collection and treatment system on the island. Although funding has been applied for, approval from the U.S. Environmental Protection Agency (EPA) is currently being delayed. The EPA is in the process of conducting an environmental impact study of development activities on North Carolina's barrier islands, one of which is Ocean Isle Beach. This environmental study could delay possible funding approval for up to two years, after which the actual costs could be substantially higher than initial estimates.

c. Utilities Extension Policy:

The Town's policy concerning extending waterlines to newly developed areas (water is currently the only town-owned utility) is for the developer to pay all of the costs of extension and installation. The Town, however, does the actual work. After construction, all the lines become the Town's property.

d. Recreation Policy:

Ocean Isle does not have a recreation policy and currently provides no public recreational activities. The beaches provide most of the area's recreational opportunities, and beach access has not been a problem thus far. As growth continues to occur outside of the Town--particularly private developments--beach access problems may develop over the years. If recreation policies are developed, then beach access will need to be addressed.

e. Prior Land Use Plans:

This is Ocean Isle's first attempt at developing its own land use plan. In 1976, the Town agreed for Brunswick County to prepare Ocean Isle Beachs Plan as part of the County's Plan. The Town Officials determined that it would be in the best interest of

Ocean Isle to formulate its own land use and land development policies because of increased development within the Town.

f. Regulations and Enforcement Provisions:

1. CAMA Permits:

Because of Ocean Isle's location and geographic features, most of the new development is regulated by the CAMA permit process. Although in some cases enforcement of the CAMA permits may have caused developers some minor inconvenience, it has proven to be an effective tool in regulating development in Ocean Isle. The Town's Building Inspector also serves as the local CAMA Minor Permit Officer. The Areas of Environmental Concern which were described in the preceding section are areas which need protection. Enforcement of the CAMA permit process is a major means for that protection.

2. Zoning Ordinance and Zoning Map:

Ocean Isle adopted a Zoning Ordinance and Zoning Map in 1972. The ordinance established four use districts (two for residential uses, and two for commercial uses), and is actively enforced. The Building Inspector is also the Zoning Officer. In conjunction with the Zoning Ordinance, the Town also has both a Planning Board and a Board of Adjustment. Supplementary enforcement provisions in the ordinance includes ocean set-back lines and a prohibition against the location of mobile homes within the Town. The Zoning Ordinance, as of the writing of this report is being amended but no district changes are proposed. The Zoning Ordinance is the major local tool for regulating development.

3. Subdivision Regulations:

A Subdivision Ordinance was adopted by the Town in 1975 and has been used to regulate the general design of new residential development. The design standards are currently broad, allowing for considerable flexibility, but does address flood hazard prevention measures in specific terms. Ocean Isle needs to evaluate its Subdivision Ordinance--with particular attention focused on the design and construction standards--for possible revisions. This evaluation is necessary in light of the continuing growth which is occuring both within the Town limits and within an area of possible extra-territorial jurisdiction. The Subdivision Ordinance, like the Zoning Ordinance, is enforced by the Building Inspector.

4. Sedimentation and Erosion Control Ordinance:

Ocean Isle does have an ordinance which imposes certain standards upon new development in order to protect the Town from problems associated with soil erosion and sedimentation. This ordinance, however, does not address beach development erosion problems, which are regulated by CAMA permits. The Building Inspector is the designated enforcement officer.

5. Dune Protection Ordinance:

Ocean Isle has an ordinance which prohibits the use of any vehicles, including off-road vehicles (dune buggies, in particular) on any beach strand. This applies in particular to the area's sand dunes. This ordinance is also enforced by the Building Inspector.

6. Septic Tank Regulation:

Currently, septic tanks provide the only waste water treatment system for Ocean Isle Beach. Septic tank installation is regulated by the Brunswick County Health Department. Each application is followed up with a site evaluation by a County Sanitarian, who determines suitability. If the lot or property is determined to be suitable for septic tank installation, a permit is granted.

7. Flood Damage and Prevention Ordinance:

Ocean Isle adopted a Flood Damage and Prevention Ordinance and began participation in the Federal Flood Insurance Program in 1974. The Flood Ordinance is enforced as part of the Town's building permit program. The Building Inspector is the enforcement officer.

g. Federal and State Regulations:

In addition to the local ordinances and County regulations listed and described above, there are various State and Federal regulations which could also affect land development in Ocean Isle Beach. A summary of these regulations is included in Tables 4 through 6, beginning on Page 15.

TABLE 4

STATE LICENSES AND PERMITS

Agency	Licenses and Permits
Department of Natural Resources and Community Development Division of Environmental Management	- Permits to discharge to surface waters or operate waste water treatment plants or oil discharge permits; NPDES Permits, (G.S. 143-215) - Permits for septic tanks with a capacity over 3000 gallons/day (G.S. 143-215.3). - Permits for withdrawal of surface or ground waters in capacity use areas (G.S. 143-215.15). - Permits for air pollution abatement facilities and sources (G.S. 143-215.108). - Permits for construction of complex sources; e.g. parking lots, subdivisions, stadiums, etc. (G.S. 143-215.109). - Permits for construction of a well over 100,000 gallons/day (G.S. 87-88).
Department of Natural Resources and Community Development Office of Coastal Management	- Permits to dredge and/or fill in estuarine waters, tidelands, etc. (G.S. 113-229). - Permits to undertake development in Areas of Environmental Concern (G.S. 113A-118). NOTE: Minor development permits are issued by the local government.
Department of Natural Resources and Community Development Division of Earth Resources	- Permits to alter or construct a dam (G.S. 143-215.66). - Permits to mine (G.S. 74-51). - Permits to drill an exploratory oil or gas well (G.S. 113-381). - Permits to conduct geographical exploration (G.S. 113-391).

	- Sedimentation erosion control plans for any land disturbing activity of over one contiguous acre (G.S. 113A-54).
Department of Natural Resources and Community Development Secretary of NRCD	- Permits to construct an oil refinery.
Department of Administration	- Easements to fill where lands are proposed to be raised above the normal high water mark of navigable waters by filling (G.S. 146.6(c)).
Department of Human Resources	- Approval to operate a solid waste disposal site or facility (G.S.130-166.16). - Approval for construction of any public water supply facility that furnishes water to ten or more residences (G.S. 130-160.1).

TABLE 5

FEDERAL LICENSES AND PERMITS

Agency	Licenses and Permits
Army Corps of Engineers (Department of Defense)	- Permits required under Sections 9 and 10 of the Rivers and Harbors of 1899; permits to construct in navigable waters. - Permits required under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. - Permits required under Section 404 of the Federal Water Pollution Control Act of 1972; permits to undertake dredging and/or filling activities.
Coast Guard (Department of Transportation)	- Permits for bridges, causeways, pipelines over navigable waters; required under the General Bridge Act of 1946 and the Rivers and Harbors Act of 1899. - Deep water port permits.
Geological Survey Bureau of Land Management (Department of Interior)	- Permits required for off-shore drilling. - Approvals of OCS pipeline corridor rights-of-way.
Nuclear Regulatory Commission	- Licenses for siting, construction and operation of nuclear power plants; required under the Atomic Energy Act of 1954 and Title II of the Energy Reorganization Act of 1974.
Federal Energy Regulatory Commission	- Permits for construction, operation and maintenance of interstate pipelines facilities required under the Natural Gas Act of 1938. - Orders of interconnection of electric transmission facilities under Section 202(b) of the Federal Power Act.

- Permission required for abandonment of natural gas pipeline and associated facilities under Section 7C (b) of the Natural Gas Act of 1938.

- Licenses for non-federal hydroelectric projects and associated transmission lines under Sections 4 and 15 of the Federal Power Act.

TABLE 6

FEDERAL, STATE AND LOCAL CONTROLS

FEDERAL

___ National Historic Preservation Act of 1966

___ The Archeological and Historic Preservation Act of 1974, Public Law 93-291

___ Executive Order 11593, Protection and Enhancement of the Cultural Environment, 16 U.S.C. 470 (Supp. 1, 1971)

___ National Environmental Policy Act, Public Law 91-190, 42 U.S.C. 4321 Et. Seq. (1970)

___ Community Development Act of 1974, Public Law 93-383: Environmental Review Procedures for the Community Development Block Grant Program (40 CFR Part 58)

___ Procedures for the Protection of Historic and Cultural Properties (36 CFR Part 800)

___ Comprehensive Planning Assistance Program (701) as Amended by Public Law 93-393

___ The Department of Transportation Act of 1966, Public Law 89-670

___ Identification and Administration of Cultural Resources: Procedures of Individual Federal Agencies

STATE

___ G.S. 121-12(a) Protection of Properties in the National Register

___ State Environmental Policy Act, Article 1 of Chapter 113A of the General Statutes

___ Executive Order XVI

___ Indian Antiquities, G.S. 70.1-4

___ Salvage of Abandoned Shipwrecks and Other Underwater Archeological Sites: G.S. 121-22, 23; 143B-62(1) g, (3)

___ Archeological Salvage in Highway Construction, G.S. 136-42.1

___ Provisions for Cultural Resources in Dredging and Filling Operations, G.S. 113-229

C. CONSTRAINTS: LAND SUITABILITY:

As noted in the discussion of Existing Land Uses, (Page 7), there is a considerable amount of undeveloped land in Ocean Isle Beach which might have future development potential. However, the Town recognizes the importance of being aware of existing physical limitations to development. Physical limitations are important to recognize, both from the standpoint of guiding land use decisions and in protecting the health, safety and welfare of the general public. Below is a discussion of the physical limitations to development in Ocean Isle Beach.

1. Physical Limitations: There are no man-made hazards within the current jurisdiction of the Town. However, a small airstrip located northeast of the intersection of the N.C. 904 and S.C. 1156, could in the future be included within the Town's extra-territorial jurisdiction. The airstrip is small, being used mostly for small, private planes, and poses no significant threat to future development.

Natural hazard areas in Ocean Isle are the same as the AEC's described and discussed under Ocean Hazard Areas, and include the Ocean Erodible Area, Flood Hazard Area, Inlet Hazard Area, Ocean Beaches, Frontal Dunes, and possibly, some Primary Dunes. These areas which are defined and described geographically in Part B, 4. (e) (4), (pp. 9-11) of this section, do present physical limitations to development in Ocean Isle Beach. Erosion is particularly acute on the east end of the island, where several houses have had to be removed because of severe erosion.

Ocean Isle contains several soil types which could present problems both for building foundations and septic tank installation according to the general Brunswick County Soil Survey of the Outer Banks prepared in 1977. These types are beach-foredune, carteret-low, corolla fine sand, and newhan soils, which occur in various parts of the island. Tables 7 and 8, along with the adapted soil map (Map 2, P. 23) provide more detail on these soil associations. The majority of the soils in Ocean Isle are made-land and newhan, both of which are characterized by rare or no flooding and have rapid to very rapid permeability. Though generally, the soils in Ocean Isle Beach have limitations for both structures and septic tank placement, there are substantial areas within these classes which are suitable for development. (Compare Map 2, page 23, to Map 3, page 26). Note also that an updated Brunswick County Soil Survey is currently being prepared which includes Ocean Isle Beach. This survey, which is being prepared jointly by the U.S. Soil Conservation Service, The N.C. Department of Natural Resources and Community Development, and Brunswick County, should be complete and published in 1982. Preliminary reports indicate that some of the 1977 soil designations and ratings may be changed due to more detailed maps and data. Ocean Isle will consult with the Brunswick County Soil Conservation office to obtain updated and detailed soil survey information, as it becomes available.

TABLE 7 - ESTIMATED SOILS PROPERTIES SIGNIFICANT TO ENGINEERING

MAP SYMBOL, LAND TYPES	DEPTH TO SEASONAL HIGH WATER TABLE	FLOODING	PERMEABILITY
#3 Beach - Foredune Association	Beach-0 to 3.0' Foredunes 6.0'	Frequent Rare	Rapid 6.3"/hr
#6 Carteret soils, low	0 to 3.0'	Frequent (daily)	Rapid 6.3"/hr
#7 Corolla fine sand	1.5 to 3.0'	Rare to Common Storm tides	Very rapid 20"/hr
#10 Dredge Spoil	3.0'	Rare-Storm tides	Rapid 6.3"/hr.
#17 Madeland	3.0'	Rare-storm tides	Rapid 6.3"/hr.
#21 Newhan fine sand	6.0'	None	Very rapid 20"/hr.
#22 Newhan-Corolla Complex	(moderately well-drained to excessively drained soils, having low natural fertility with fine and coarse sands).		

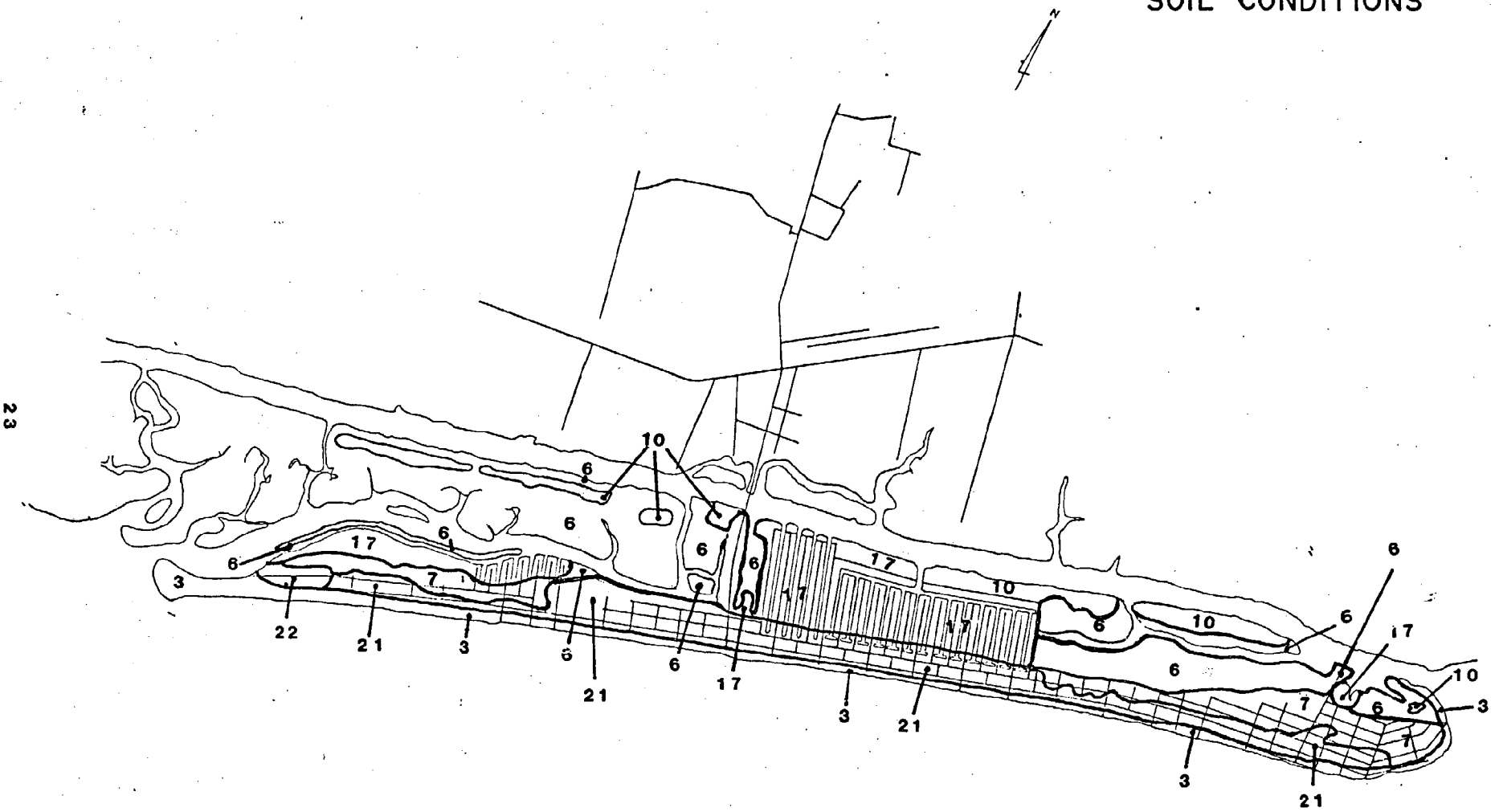
SOURCE: Soil Survey of the Outer Banks of North Carolina, Brunswick County, 1977

TABLE 8 - DEGREE AND KIND OF LIMITATION FOR STATED USE

MAP SYMBOL, LAND TYPES	DWELLINGS	STREETS & ROADS	SEPTIC TANK FILTER FIELD
#3 Beach-Foredune Association	very severe-flooding	very severe-flooding	very severe-flooding
#6 Carteret soils, low	very severe-flooding-wet	very severe-flooding-wet	very severe-flooding-wet
#7 Corolla fine sand	severe-wet	severe-wet	severe-wet
#10 Dredge spoil	severe	severe	severe
#17 Madeland	severe	severe	severe
#21 Newhan fine sand	slight	slight	slight
#22 Newhan-Corolla Complex	(moderately well-drained to excessively drained soils, having low natural fertility with fine and coarse sands).		

SOURCE: Soil Survey of the Outer Banks of North Carolina, Brunswick County, 1977

MAP 2
OCEAN ISLE BEACH
SOIL CONDITIONS



DETAILED SOIL MAPS CAN BE FOUND
IN THE BRUNSWICK COUNTY FIELD OFFICE
U S D A SOIL CONSERVATION SERVICE
BOLIVIA, NORTH CAROLINA

ADAPTED FROM
BRUNSWICK COUNTY SOIL SURVEY
OF THE OUTER BANKS, 1977

Soil limitation ratings in Tables 7 and 8, are indicated for "dwellings", "streets and roads", and "septic tank filter fields". A rating of slight means that soil properties are generally favorable for the stated use or that limitations are minor and can be easily overcome. A rating of moderate means that some soil properties are unfavorable but that limitations resulting from the properties can be overcome or modified by special planning, good design, and careful management. A rating of severe means that soil properties are unfavorable and that limitations resulting from the properties are too difficult to correct or overcome. Soils having this rating require major soil reclamation or special design for stated uses. However, a rating of severe is not intended to imply that a soil cannot be used for the specific purpose listed in Table 8. This rating implies that significant modifications may be required prior to the stated use.

The emphasis in rating soils for dwellings is on properties that affect foundations. Also considered beyond the effects related exclusively to foundations are slope, susceptibility to flooding, seasonal high water table, and other hydrologic conditions. It is important to note that on-site investigations on a case by case basis, are needed for interpretations relevant to detailed design of foundations and to specific placement of buildings and utility lines.

Criteria for rating soils for use as filter fields for septic tanks are properties that limit the absorption or treatment of effluent. The properties are slope, susceptibility to flooding, presence of a seasonal high water table, and permeability of the subsoil and underlying material. Past performance of existing filter fields is also important in determining the suitability of a site for the installation and design of a ground absorption sewage disposal system.

Soil types which limit septic tank installation are of particular importance to Ocean Isle Beach since septic systems are currently the only source of waste water disposal for the Town. In addition to the general soil limitations noted above, the Brunswick County Health Department has pointed out four particular areas on the island which have septic tank limitations. These areas were delineated by a Brunswick County Sanitarian and are approximately located on Map 3, P.26, and described below:

Area one consists of filled material, primarily sandy, with some broken shell or mucky material intermixed. Some of the lots in this area have required additional fill, when developed, to enable the septic system to be installed the required distance from the seasonal subsurface water table.

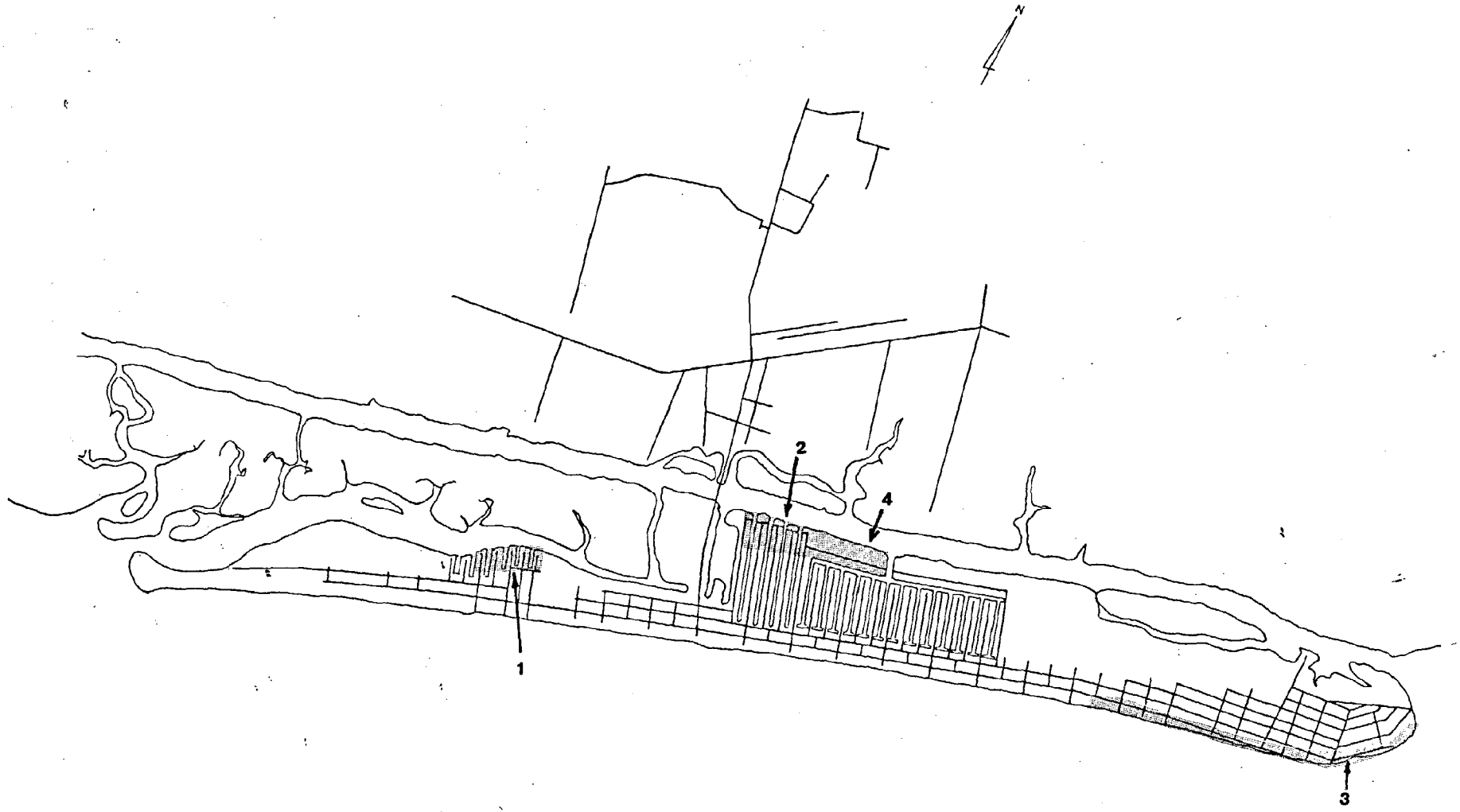
Area two consists primarily of dredge-spoil material. The soils seem to be sandier toward the ocean, with more broken shell fragments and mucky material being found closer to the waterway. Some of the older septic systems have malfunctioned in this area, due possibly to inadequate design size or increased water flow during the summer season. Most new lots developed in this area since July 1977, have required fill over the poor soil; removal and replacement of poor soil with suitable material; and in some cases, limitations on size of dwelling and number of bedrooms.

Area three has generally suitable soil conditions; however, tidal erosion of the lot may prevent septic systems from being installed because of insufficient area to meet minimum horizontal distance requirements between septic systems and coastal waters.

Area four is also primarily dredge spoil material. The closer the lots are to the waterway, the greater amount of broken shells intermixed in the soil. Systems installed in this area since July 1977, have had slightly oversized design, depending upon the amount of shell material present.

The County Sanitarian pointed out that septic tank failure notices were not kept accurately prior to July 1977. There have been few failure notices issued since that time. However, this is possibly due to the seasonal use of many of the dwellings at Ocean Isle Beach; better preparation of the lots prior to installing the systems and larger design of drainfields, according to the Sanitarian.

MAP 3
OCEAN ISLE BEACH



AREAS WITH SEPTIC TANK LIMITATIONS

2. Atlantic Intracoastal Waterway Easement: U.S. Army Corps of Engineers: During the 1930's the Corps of Engineers was granted an easement along the Atlantic Intracoastal Waterway (AIWW) of up to 1,000 feet inland from the waterway for maintenance purposes. By right of this easement, the Corps claimed access rights to the land for the placement of dredged and fill material upon it, as well as the option to cut away and remove the land. However, the existence of the easement was unknown to many property owners and land within the easement was subsequently platted into lots and houses developed upon it. The Corps still claimed it had right of access to use land for maintaining the waterway. Land used for the dumping of spoil would definitely pose a physical limitation to future development. However, since most of the land area of the original easement in Ocean Isle Beach has been either platted and/or developed, the Corps of Engineers has agreed to relinquish its right of access to the property. Instead, the Corps and Ocean Isle Beach has reached an agreement whereas the Town will provide some other land area for the Corps to use as a spoil area. This land, which at the writing of this report had not been surveyed, will also pose a minor limitation for future development.

3. Horizontal Wellfields: As stated previously, Ocean Isle's current water service is based on a system of 13 wells, which tap a groundwater supply. Ten of these wells are horizontal wells on the island. These wells must be recharged in equilibrium to extraction, or a situation similar to the one which occurred in the summer of 1980, could occur again (See Page 8). Currently, the wellfields take up significant amounts of land, since the wells are all of the horizontal type. In these wells, perforated horizontal pipes extend one hundred feet or more beneath the surface of an open field or vacant lot. As long as the wells are used, no development can take place on the land above them, making these lots undevelopable.

As the growth trends continue and pressures for development increase, reliance upon the use of these horizontal wells as Ocean Isle's only water source is, in itself, a limitation to development.

4. Slopes: The only area where the slope may exceed 12 percent are some of the frontal dunes, which are also ocean hazard areas and are protected by CAMA.

5. Fragile Areas: These are areas which could easily be damaged or destroyed by inappropriate or poorly planned development. In Ocean Isle Beach, the fragile areas coincide with the Areas of Environmental Concern. These areas are described in Part B, 4.(e) of this section and are summarized below:

-- Coastal Wetlands: The marsh areas adjacent to the Intracoastal Waterway and Old Sound Creek, and some of the land around the finger canals are considered Coastal Wetlands.

-- Estuarine Waters: This includes the Intracoastal Waterway; Tubb's Inlet on the west end of the island; Shallotte Inlet on the east end; and the finger canals located near the center of the island.

-- Public Trust Areas: The two inlets on either end of the island, the Intracoastal Waterway, ocean beaches, and the ocean adjacent to the beaches are the Public Trust Areas of Ocean Isle Beach.

-- Estuarine Shorelines: This applies to the shorelines and 75 feet inward from the Estuarine Waters noted above.

-- Ocean Beaches: The beach along the Atlantic Ocean, which extends along the entirety of the island's southern border, from the first line of vegetation or significant change in slope toward the ocean.

Ocean Isle Beach does not contain any of the following fragile areas: Complex natural areas; areas that sustain remnant species; areas containing unique geologic formations; registered natural land marks; wooded swamps, prime wildlife habitats; scenic or prominent high points, or archaeologic or historic sites.

6. Areas with Resource Potential: There are no productive or unique agricultural lands within Ocean Isle Beach. The island also does not contain any potentially valuable mineral sites; publicly owned forests, parks, fish and gamelands; or other non-intensive outdoor recreation lands, or privately-owned wildlife sanctuaries. However the estuaries around Ocean Isle are considered to be important breeding areas for both finfish and shellfish. The Old Sound Creek area (also known as Eastern Channel) has been included in the N. C. Division of Marine Fisheries' Oyster Management Program since the late 1960's. In addition to being an important nursery and hatchery area, This area also serves as a "bottom area" for the harvesting of clams and oysters from the mud bottoms. The Old Sound Creek area is a resource area that needs to be protected.

D. CONSTRAINTS: CAPACITY OF COMMUNITY FACILITIES:

1. Existing Water Service Areas:

The current water service area for Ocean Isle Beach's municipal system includes the entire corporate limits of the Town and a small area outside of the Town limits. The Town limits include the entire island, bounded on the south by the Atlantic Ocean and to the north, on both sides of N. C. 904, by the Intracoastal Waterway. However, the corporate limits extends outward 200 feet from the centerline on either side of N. C. 904 as it crosses the waterway, northward to the intersection of N. C. 904 and State Road 1156. The businesses and residences along N. C. 904 are also served by the water system. Additionally, 27 residences and businesses located on the east and west sides of N. C. 904, which are

outside of the Town limits, are also served by the water system. The total number of customers served by the system totals 800, of which an estimated 90 users utilize water all year-round.

When all 13 wells are complete and functional, the Town expects to have a total pumping capacity of 986,400 gallons per day (GPD). The design capacity, according to guidelines established by the N. C. Department of Human Resources, would be one-half of the total pumping capacity. Design capacity, however, when compared to levels of demand, gives an indication of need for additional water sources. Since Ocean Isle is a seasonal tourist center, water demand levels fluctuate from a low usage level for the small year-round population to peak usage levels during the summer influx of vacationers and tourists. The N. C. DNRCD, Division of Environmental Management projected the water demand for the population extremes which occur at Ocean Isle Beach. A brief analysis of that information as indicated in Table 9, below shows the total capacity and design capacity, compared with peak demands, in order to depict what the long range water needs are for Ocean Isle.

TABLE 9: Water Use and Capacity: Ocean Isle Beach

(A) No. Residents	(B) * Total Capacity	(C) *Design Capacity	(D) * Peak Demand	(E) *Per Capita Consumption	(F) *Excess Total Capacity	(G) *Excess Design Capacity
** 200	986,400	493,200	13,000	65	973,400	480,200
***7,000	986,400	493,200	432,000	61	554,400	61,200

Source N.C. DNRCD-DEM, Wilmington R.O./ Talbert, Cox & Associates, Inc.

* measured in gallons per day (GPD)

In terms of total pumping capacity, Ocean Isle's water system is adequate to handle a significant amount of population growth--both in terms of seasonal increases and in permanent residents. This is indicated in Column F, Table 9. If the average daily per capita consumption were 70 gallons per day, (See Column E, Table 9), then Ocean Isle's water system could sustain a peak population of 14,091 persons at its current total capacity of 986,400 GPD. However, when design capacity is considered, as Column G, Table 9 indicates, the long-term population peak that could be sustained by the Town's water system would be around 7,000 persons. Thus, although the total water pumping capacity is more than adequate, an examination of the design capacity is another indication that additional water sources may need to be developed. Ocean Isle Beach is aware of this problem and the Town has acquired three additional well sites on the mainland. When these new wells are developed the Town's water capacity should be adequate for the projected seasonal and permanent populations throughout the planning period.

** Year-around
*** seasonal

2. Sewer Service Area:

There is no central sewage collection and disposal system on Ocean Isle Beach. Waste water disposal is handled solely through the use of septic tanks. Soil types in several locations on the island have been pointed out as "septic tank problem areas" by the Brunswick County Health Department. (See Map 3, Page 26). These areas, which were discussed in Part C. (1) of this section, are constraints to future intensive development. Additionally, if septic systems continue to be the sole waste water disposal alternative, and intensive development occurs, so will the risk of groundwater and estuarine water contamination.

3. Schools:

The few school age children who reside in the Town attend the three schools in Shallotte, which is six miles away. Two of the three schools, West Brunswick High School and Union Primary are currently operating near capacity levels. Shallotte Middle School does, however, have some excess capacity. If the number of children in grades K-3, and 9-12, increase significantly in Ocean Isle Beach, then an expansion of school facilities in Shallotte may be needed. This is indicated by Table 10, below:

TABLE 10: Enrollment Levels and School Capacity: Shallotte, N.C.

School	1980-81 Enrollment	Design Capacity	Percent Utilization
W. Brunswick High (9-12)	989	1,000	98.9
Shallotte Middle (4-8)	941	1,200	78.4
Union Primary (K-3)	735	750	98.0

Source: Brunswick County Board of Education

4. Transportation:

The major traffic arteries in Ocean Isle Beach are N. C. 904, which is the main access road to and from the mainland, and S.R. 1144 (First Street). The other streets in the Town are neighborhood streets. Both N. C. 904, and S.R. 1144 are paved and are maintained by the State Department of Transportation. The design capacities of these roads are currently estimated to be adequate to handle present traffic volumes. The N. C. Department of Transportation could not provide detailed information on the design capacities of these roads. The single-lane bridge on N. C. 904, which currently spans the Intracoastal Waterway is scheduled to be replaced. The replacement bridge is expected to be completed sometime in 1982. The new bridge will be located about 100 feet west of the existing structure and will require the relocation of two residences and two businesses. The new bridge will be two-lanes instead of one, and will substantially increase the design capacity of N.C. 904, providing better access to and from Ocean Isle Beach. Average Daily Traffic Counts (ADT) for N.C. 904

at its intersection with the waterway have been estimated by the State Department of Transportation and are provided below:

TABLE 11. Traffic Counts and Projections: N.C. 904

Year	ADT
1979	2,430
1985	2,500
2005	5,000

Source: N. C. DOT, Raleigh, N. C.

Traffic counts are projected to increase slowly up to 1985. During the following 20 years, however, traffic counts are projected by the DOT to double in volume.

To summarize the discussion of Constraints, it should be pointed out that it is difficult to separate the major inhibitors of future development in Ocean Isle Beach into categories of "land suitability" and "capacity of facilities". Because of the physiography of the island, the two areas of constraint are closely connected. Major Facility constraints such as water and sewer, for example, are intimately tied to the land suitability. All of the constraints, however, do form a basis for discussion of issues leading to the formulation of policy alternatives.

E. ESTIMATED DEMAND:

1. Population and Economy:

The impact of population increases and the need for land and community services in Ocean Isle Beach must be examined from two perspectives. First, the impact of increases in the number of permanent, year-round residents must be considered. Second in consideration but of equal importance, the growth in the seasonal population. Projections and an examination of the impacts of both populations are included below:

a. Permanent Population: Projections to 1990:

Since Ocean Isle Beach has a population of less than 2,500 the N. C. Department of Administration does not have 10 year projections for the Town. The population estimates for 1990 were derived by averaging the differences between two methodologies. The first method was to take the 1970 to 1980 growth rate and assume that it would be constant for the next decade. Ocean Isle's population in 1980 had grown to 180 from 78 in 1970. An increase of 130.8 percent. If this rate is constant, then the 1990 population will show a numerical increase of 235 for a total of 415 persons. The second method was to take Ocean Isle's percent of the Brunswick County population for 1980 (.509), and assume that the Town would have the same percentage in 1990. The population projection

for Brunswick County was obtained from the State Department of Administration and was projected to be 58,100. When Ocean Isle's 1980 percentage factor of .509 is multiplied by 58,100, the Town's estimated population would be 296 by 1990. The average of the two figures is 356. Thus, the 1990 estimate for year-round residents in Ocean Isle Beach is 356, which represents a 10 year increase of 98 percent.

When the total developable acreage is considered the 1990 population will double the density level from 111 persons to 221 persons per acre.

The increase in the number of year-round residents will increase the demand for basic services. The current water system has adequate capacity to handle such an increase (See Table 9, Page 29). The installation of septic tanks to handle the increased effluent demands under current conditions could result in serious problems particularly near the center of the island (See Map 3, Page 26). However, if Ocean Isle Beach can obtain funding now being sought for the development of a central collection and disposal system, potential problems caused by soil limitations will be eliminated. As noted earlier, funding decisions for the proposed sewer system are being delayed because of the generic study of barrier islands by the U. S. Environmental Protection Agency.

Ocean Isle's current police force may have to increase slightly in order to provide adequate police protection. The Volunteer Fire Department will probably be adequate for some years to come. The tax base of the Town will increase through the expansion of developed property. More commercial services will remain open year-round to serve the expanded population, and thereby yield an increase in retail sales in the off-season and boost the local economy.

It should be noted that there are many factors which could alter the projections made above, and that the estimated impacts should be viewed cautiously. For example, the development of new industries on the mainland may encourage newly employed personnel to seek permanent residence in Ocean Isle Beach thus expanding its population faster. On the other hand, sustained high interest rates, rising land costs, and other pressures on development could possibly slow down the projected growth rates.

b. Seasonal Population:

In 1970, according to local realtors and motel operators, the seasonal population averaged 3,000 persons in Ocean Isle Beach. In 1980, the seasonal population averaged around 6,000 persons--an increase of 100 percent. This trend is expected to continue. Thus, by 1990, Ocean Isle Beach can expect the seasonal population to average around 12,000 people. This influx would have a tremendous impact upon the demand for water, sewage disposal, police protection, solid waste disposal, and transportation access. Also, because many tourists are "day visitors", i.e.,

residents of relatively nearby mainland communities, a greatly increased demand for public parking will also result. Presently, the only public parking is provided at the Ocean Isle Fishing Pier. With the continuing development of single-family homes and cottages, and condominiums, a major portion of the 12,000 visitors in 1990 may spend most of the summer at Ocean Isle Beach. The current water capacity would be inadequate to handle such an influx without centralized sewage collection and disposal, such projected growth will simply not be feasible in Ocean Isle Beach. Although the community of Ocean Isle Beach currently is and likely will remain, an attractive residential and tourist area, the limitations posed by inadequate water supplies and inadequate waste water disposal are the most serious obstacles to future development.

2. Future Land Need:

The developable acreage in Ocean Isle Beach, as noted in Table 3, Page 7, is approximately 1,030 acres. The current year round population density is 0.17 persons per acre. The 1980 seasonal peak of 6,000 pushed the density up to 5.83 persons per acre. The 1990 population projections, both for permanent and seasonal residents, will nearly double the current density levels. At a 1990 year-round population of 356, the density would be 0.35 persons per acre. The 1990 seasonal peak of 12,000 persons would produce a density of 11.6 persons per acre. None of these levels are considered to be unacceptable, particularly with the provision of centralized water and sewer services. Also, as Table 3 pointed out, currently only 18.6 percent of the total developable land is developed.

The Table below shows the projected land need by use categories for 1990. This projection is based on the relationship between the total developed acreage in 1980, to the peak seasonal population of 1980 (6,000 people). This projection is quite conjectural, since there is not likely to be a straight line relationship between the population and various uses. For example, the current commercial and transportation acreage could perhaps sustain a much higher density than the current seasonal population peak. Nevertheless, the projection of future land needs can be a useful tool. The 1990 seasonal peak is projected to be 12,000, exactly double the 1980 figures. Thus, when the projected increase of 6,000 is multiplied times the current ratios, the acreage will also double.

TABLE 12: Projected 1990 Land Need Based on Seasonal Populations:

	1980 Acres	1980 Density Factor	1990 Acres Needed	1990 Acreage
- Single family	105	.0175	105	210
- Multi-family	25	.0042	25	50
- Public/Semi-Public	5	.00083	5	10
- Commercial	9	.0015	9	18
- Office and Institutional	2	.00033	2	4
- Transportation	45	.0075	45	90
TOTAL	191		191	382

Source: Projections by Talbert, Cox & Associates, Inc., 1981

If the ratio between developed acreage and population remains constant, then by 1990, only 37.2 percent of the island's developable land will be developed. Ocean Isle, therefore, appears to have adequate land resources to meet projected land needs.

3. Community Facilities Need:

As the discussion in the preceding section (Future Land Need) indicated, the seasonal peak population by 1990, will add substantially to Ocean Isle's population density. A projected density of 11.6 persons per acre will make it all but mandatory that some type of central sewage collection and disposal system be installed. The major community facilities need, therefore, will be the installation of a sanitary and environmentally sound waste collection and disposal system.

The N. C. Department of Transportation is expected to replace the N. C. 904 bridge, which will adequately handle projected traffic volume increases. The implementation of a Thoroughfare Plan, which was adopted by the Town in June, 1981, should also facilitate traffic flows in the Town. This is important during peak vacation periods.

SECTION II
POLICY STATEMENTS

II. POLICY STATEMENTS:

The formulation of policy statements, which will be used as guides for implementing growth management objectives, is perhaps the most important part of this land use plan. According to NCAC 7.B.0203, Ocean Isle Beach must set forth statements of local policy on at least four specific land use issues which will affect the Town during the 10-year planning period. The specific issues which must be addressed include resource protection, resource production and management, economic and community development, and continuing public participation.

In addition to the four required issue areas, the Coastal Resources Commission assigned two other "special" issues to Ocean Isle Beach which also must be addressed in the Policy Statements Section of this plan. These two issues are: ocean front erosion/ inlet stabilization, and Atlantic Intracoastal Waterway easements. The policy statements included in this section were developed from citizen input (gathered from a series of questionnaires), meetings with the Town's Planning Board and discussions with local elected officials.

A. RESOURCE PROTECTION:

Ocean Isle Beach's major concern in the area of resource protection deals with the management of development in environmentally sensitive areas. State and locally issued development permits are already required before any development activity can take place in the identified areas of environmental concern. The general use standards for these areas are included in 15 NCAC 7-H and are controlled through the CAMA permit process. In Ocean Isle Beach these Areas of Environmental Concern encompass Coastal Wetlands, Estuarine Waters, Estuarine Shorelines, Public Trust Areas, and the Ocean Hazard Areas, which include the Ocean Erodible Area, High Hazard Flood Area, Inlet Hazard Area, and sand dunes. Coastal wetlands are those regularly flooded marsh areas which often contain specific marsh plant species. Estuarine Waters and shorelines are those waters and adjacent shore areas subject to tide and saltwater intrusion and are important as nurseries for many marine life species. The Public Trust Waters involve all navigable waters in and around Ocean Isle Beach. Ocean Hazard Areas are considered natural hazard areas along the Atlantic Ocean shorelines, where, because of special vulnerability to erosion or other adverse effects of sand, wind, and water, unregulated development could unnecessarily endanger life or property. These AECs are further defined along with geographic descriptions, in the following discussion.

1. Estuarine System:

In determining appropriate land uses within the AECs those in the Estuarine System, i.e., Coastal Wetlands, Estuarine Waters and Public Trust Areas, will be considered as one general grouping, since they are closely interrelated. Estuarine Shorelines are

also a vital component of the Estuarine System, but will be addressed separately.

a. Coastal Wetlands, which are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial water sources), provided this shall not include hurricane or tropical storm tides. Coastal Wetlands also contain certain marsh plant species. In Ocean Isle Coastal Wetlands occur generally in the northern portions of the island which are adjacent to the Intracoastal Waterway. The most substantial amount of wetlands is located in the northwest sector of the island between the Intracoastal Waterway and Old Sound Creek. Also included are the marshlands adjacent to the Intracoastal Waterway, and the land adjacent to the finger canals leading to the waterway. These areas are important because the marsh maintains the high productivity of fish and shellfish and the complex food chains which are typically found in the estuaries:

b. Estuarine Waters are defined as "all the water of the Atlantic Ocean within the boundary of North Carolina and all the water of the bays, sounds, rivers, and tributaries thereto seaward to the dividing line between coastal fishing waters and inland fishing waters" (N.C.G.S. 113A-113(b) (2). The Estuarine Waters are very important for a number of reasons, mainly because they serve as the birth place and nursery areas of many species of fish and shellfish. Estuarine Waters support the valuable commercial and sports fishing of the coastal area which are comprised of estuarine-dependent species such as menhaden, flounder, shrimp, crabs, and oysters. These species must spend all or some part of their life cycle within the Estuarine Waters in order to mature and reproduce. The Estuarine Waters within Ocean Isle Beach's jurisdiction include the Intracoastal Waterway, the major inlets on either end of the island, (Shallotte Inlet on the east end, and Tubb's Inlet on the west end), and the finger canals located near the island's center.

c. Public Trust Areas, which are partially defined as all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands there under to the mean high mark; all navigable natural bodies of water and lands thereunder to the mean high water level or mean water level, as the case may be. In other words, Public Trust Areas are waters and adjacent lands, the use of which, benefits and belongs to the public. Public Trust Areas are used for both commercial and recreational purposes. In Ocean Isle Beach the Intracoastal Waterway, Tubbs Inlet, Shallotte Inlet, Ocean Beaches, and the Atlantic Ocean adjacent to the beaches are all Public Trust AECs. These areas support recreational uses such as swimming, boating, water skiing and sportsfishing and commercial fishing.

Ocean Isle Beach's overall policy and management objective for the Estuarine System is "to give the highest priority to the protection and coordinated management of these areas, so as to safeguard and perpetuate their biological, social, economic, and aesthetic values and to ensure that development occurring within these AECs is compatible with natural characteristics so as to minimize the likelihood of significant loss of private property and public resources." (15 NCAC 7H.0203) In accordance with this objective, Ocean Isle Beach has considered various policy alternatives concerning development within the Estuarine System. Some of these alternatives include: continued support of federal, State and local regulatory controls; review of existing local regulations for consistency with the management objective, and revise them where necessary, and; possibly developing additional building restrictions in environmentally sensitive areas. Actual policy choices for managing development within the Estuarine System, are:

(1) Ocean Isle Beach will continue to encourage protection of the natural resources within the Estuarine System by supporting the enforcement of federal and State regulatory controls. Also, as it has done in the past, the Town will continue to enforce its own local controls on building and development. The local controls include the subdivision, zoning, leveling, dune protection, and flood damage and prevention ordinances.

(2) The Town will continually review its ordinances for consistency with CAMA's and it's own management objective, and revise them where needed. It is the belief of the Town, however, that the current CAMA permit process and the State regulations regarding the placement of septic tanks, combined with the local ordinances listed in (1) above, provide adequate management tools for achieving the stated objectives.

For the AECs within the Estuarine System, highest priority will be given to land uses which are water-dependent. Appropriate water-dependent uses include:

(a) Navigational Channels
(b) Hydraulic Dredging
(c) Drainage Ditches
(d) Non-agricultural Drainage
(e) Marinas
(f) Docks and Piers
(g) Bulkheads and other Shore Stabilization Measures

Ocean Isle Beach believes that these uses will promote the conservation and protection of the Estuarine System. Second priority will be given to uses which require water access. A third priority will be given to uses which are not necessarily water-dependent or require water access, but are supportive of these uses and can demonstrate that no major or irreversible damage will result to the AEC. All approved uses will be required to comply

with the Use Standards of the North Carolina Administrative Code (15 NCAC 7H), and the local ordinances of Ocean Isle Beach.

2. Estuarine Shorelines are defined as non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters for a distance of 75 feet inland. These areas are significant because development within the shorelines can influence the quality of estuarine life and is subject to the damaging process of shorefront erosion and flooding.

Ocean Isle recognizes the importance of managing development within the Estuarine Shoreline because actions in this area could substantially affect the quality of the Estuarine Waters. As noted in Section I, Part B, 4,(e), Page 9, this area includes lands adjacent (on both sides) of the Intracoastal Waterway, Eastern Channel (or Old Sound Creek), and the canals near the island's center which connect to the waterway.

Estuarine Shorelines encompass a substantial amount of land area within Ocean Isle Beach. Therefore, it would be impractical to restrict development from this entire area.

In order to promote the quality of the Estuarine Waters as well as minimize the likelihood of property loss due to erosion or flooding, Ocean Isle Beach will permit only those uses which are compatible with both the dynamic nature of the Estuarine Shorelines and the values of the Estuarine System. Residential, recreational, and commercial uses may be permitted within the Estuarine Shoreline, provided that:

a. a substantial chance of pollution occurring from the development does not exist;
b. natural barriers to erosion are preserved and not substantially weakened or eliminated;
c. the construction of impervious surfaces and areas not allowing natural drainage is limited to only that necessary for developments;
d. standards of the North Carolina Sedimentation Pollution Control Act 1973 are met;
e. development does not have a significant adverse impact on estuarine resources;
f. development does not significantly interfere with existing public rights or access to, or use of, navigable waters or public resources;

3. Ocean Hazards AECs:

Areas of Environmental Concern within the Ocean Hazard Areas Category are those areas considered to be natural hazard areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or adverse effects of sand, wind and

water, uncontrolled or incompatible development could unreasonably endanger life or property. Ocean hazard areas include beaches, frontal dunes, inlet lands, and other areas in which geologic, vegetative and soil conditions indicate a substantial possibility of excessive erosion or flood damage. The Ocean Hazard Areas are described below:

a. Ocean Erodible Area: This is the area of which there exists a substantial possibility of excessive erosion and significant shoreline fluctuation. The seaward boundary of this area is the mean low waterline. The landward extent of this area is determined as follows:

(1) a distance landward from the first line of stable natural vegetation to the recession line that would be established by multiplying the long-term annual erosion rate, as most recently determined by the Coastal Resources Commission, times 30, provided that where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 60 feet landward from the first line of stable natural vegetation; and

(2) a distance landward from the established recession line to the recession line that would be generated by a storm having a one percent chance or being equalled or exceeded in any given year.

The Ocean Erodible Area for Ocean Isle Beach extends 60 feet inland from the first line of vegetation. This area is also the building setback line in Ocean Isle. The rate of erosion in Ocean Isle has been estimated to be around two feet per year, making it one of the lowest erosion rates along the state's coast.

b. High Hazard Flood Area: This is the area subject to high velocity waters (including, but not limited to, hurricane wave wash) in a storm having a one percent chance of being equalled or exceeded in any given year, as identified as zone VI-30 on the flood insurance rate maps of the Federal Insurance Administration, U.S. Department of Housing and Urban Development. The 100-year base flood elevation level for Ocean Isle Beach is 14 feet above mean sea level. The area with the greatest flood hazard potential extends generally along the ocean beach where the elevation is as low as 7 feet above mean sea level. In other areas, the elevation is as high as 13.5 feet above mean sea level. The Town does participate in the Federal Flood Insurance Program.

c. Inlet Hazard Area: The Inlet Hazard Areas are those lands identified by the State geologist to have a substantial possibility of excessive erosion that are located adjacent to inlets. This area shall extend landward from the mean low waterline a distance sufficient to encompass that area within which the inlet will, based on statistical analysis, migrate, and shall consider such factors as previous inlet territory structurally weak areas near the inlet (such as an unusually narrow barrier island, an un-

usually long channel feeding the inlet, or an overwash area), and external influences such as jetties and channelization.

Ocean Isle Beach has two Inlet Hazard areas, located near the eastern and western ends of the island. The largest Inlet Hazard area is located on the eastern end of the island on land adjacent to the Atlantic Ocean and Shallotte Inlet. The other Inlet Hazard area is located on the western tip of the Island, adjacent to the Atlantic Ocean and Tubbs Inlet.

In addition to the Ocean Erodible, Flood Hazard, and Inlet Hazard areas, significant land forms such as ocean beaches and primary and frontal dunes are also considered to be ocean hazards. Ocean beaches, which consist of the land area between the mean low waterline and the first line of vegetation, or where a significant change in elevation or slope alters the configuration of the land form, whichever is farther landward, occur all along Ocean Isle's southern border. There are some frontal dunes within the Town's jurisdiction and possibly primary dunes. However, because of height definitions, primary dunes would have to be determined on a case by case basis.

4. Ocean Hazard Policies:

As in many similar beach communities, these Ocean Hazard AECs occur within substantial amounts of otherwise developable land. It would not be practical or necessary in all cases to restrict development from these areas. For AECs in the Ocean Hazards category, Ocean Isle Beach's general policy and management objective is to establish and implement standards that serve to eliminate unreasonable danger to life and property and achieve a balance between the financial, safety, and social factors that are involved in hazard area development.

Policy alternatives for managing development in the Ocean Hazards Areas which were considered include: amending or adopting local ordinances to reflect possible additional restrictions to be adopted at the State and federal levels, (imposing density controls in Inlet Hazard areas) for example, and continuing support of existing State and federal controls along with enforcement of the Town's local ordinances. Local ordinances cover zoning, subdivision, dune leveling, and flood damage and prevention.

In recognition of the critical nature of Ocean Hazard Areas, due to their special vulnerability to erosion and dynamic processes and their possible danger to life and property, the Town supports the State Policies for Ocean Hazard Areas in Subchapter 7H of the State CAMA Regulations.

Suitable land uses in Ocean Hazard Areas generally are those which eliminate unreasonable danger to life and property and which achieve a balance between the financial, safety, and social factors involved in hazard area development. Ocean shoreline erosion control activities and dune establishment/stabilization are ac-

ceptable types of land uses. Residential, commercial, and recreational land uses are permissible in Ocean Hazard Areas provided that:

a. Development is set back a minimum of 30 times the average annual erosion rate from the frontal dune or first line of vegetation. The current erosion set back line is 60 feet in Ocean Isle Beach.

b. Development does not involve the significant removal or relocation of frontal dune sand or vegetation thereon.

c. Development is consistent with minimum lot size and set back requirements established by the Ocean Isle Beach subdivision and zoning ordinances.

d. Development implements means and methods to mitigate or minimize adverse impacts of the project.

e. Development of growth-inducing public facilities such as sewers, waterlines, roads, bridges, and erosion control measures is constructed only in cases where either:

1. National or State interests and public benefits are clearly overriding factors,

2. facilities would not exacerbate existing hazards or damage natural buffers,

3. facilities would be reasonably safe from flood and erosion related damage,

f. Ocean Isle Beach, recognizing that erosion along the beaches has caused many problems, supports beach renourishment projects that would allow approved suitable spoils to be taken from Intracoastal Waterway dredging to be placed on designated areas on the island.

g. The Town, though aware that inlet migration is a natural ongoing process, supports stabilization of Inlet Hazard Areas near the Atlantic Ocean. This area is also subject to the minimum building set back line for Ocean Isle Beach. It is the policy of Ocean Isle Beach to not permit developments within the 30-year set back line, (See part a., above).

5. Natural and Cultural Resources:

As noted in Part C, 5 Page 28 of Section I, Ocean Isle Beach does not contain any of the following fragile areas: Complex natural areas; areas that sustain remnant species; areas containing unique geologic formations; registered natural land marks; wooded swamps, prime wildlife habitats; or scenic or prominent high points. Although Ocean Isle Beach has not been systematically surveyed for its archeological significance, the N. C. Division of Archives and History has recorded one prehistoric site, located on N. C. 904. It is the belief of Ocean Isle Beach that prior to development in areas with potential cultural resource value, that the area be investigated to determine its significance.

6. Physical Constraints to Development:

The physical constraints to development in Ocean Isle Beach were noted in Part C, Pages 21 through 28, of this plan. The physical limitations included a small airport, which is owned by the Town. Other limitations noted were; soil types, which were described by the Brunswick County Soil Surveys as having limitations for certain structures and septic tank suitability; horizontal well fields on the island; and fragile areas, that coincide with the Town's AECs and which were included in the preceding policy discussion. The only major limitation in terms of community facilities is the lack of a central sewer system. Ocean Isle Beach, as stated previously, was developed primarily as a quiet, relaxing, family-oriented beach. This appeal attracts thousands of visitors each year. It is vital, therefore, to the Town that this appeal continues to be maintained at the highest level of quality.

Possible policy alternatives regarding managing growth in areas with identified constraints include: amending local ordinances to restrict development in these areas; restricting development from certain areas until a central sewage collection and disposal system can be developed and; permitting development in areas of constraints when adequate and approved protective measures are taken. Within the overall objectives of maintaining quality in development, and taking steps to assure the health, safety and protection of the public, Ocean Isle Beach sets forth the following policies:

a. Residential development will not be encouraged in airport approach areas.

b. As long as the Town relies upon the system of horizontal well fields for part of its water supply, development on the land above these wells will not be allowed.

c. Ocean Isle Beach's policies on development in fragile areas are the same as those stated for Areas of Environmental Concern.

d. Until such time a central sewage collection and disposal system can be developed, growth and development will not

be encouraged in areas where septic tanks will not function. All septic tanks must be in compliance with State Health Regulations.

e. Development will be discouraged in areas where soils will not suport the weight of proposed structures. Development may be constructed if corrective measures for stabilizing building foundations are incorporated into development design.

7. Hurricane and Flood Evacuation Needs:

Ocean Isle Beach, being a barrier island community, is well aware of the potential danger to life and property in the event of a severe storm such as a hurricane or the floods resulting from a 100-year storm surge. After Hurricane David in 1979, erosion on the east-end of the island was serious enough to require the relocation of several homes. With the awareness of the potential dangers in focus, Ocean Isle Beach in 1977 developed and adopted ordinances to assist the island's residents, particularly those living in ocean hazard areas, to evacuate the island toward safer inland areas.

These ordinances, which would be promptly implemented if necessary, are adequate for the flood and hurricane evacuation needs at this time.

B. IMPLEMENTATION STRATEGY: RESOURCE PROTECTION POLICIES:

In order to implement the above policies, Ocean Isle Beach will take the following actions.

1. During Fiscal Year 1981-82, Ocean Isle Beach will authorize the Mayor to apply for funds from the Office of Coastal Management in order to provide assistance in reviewing its local ordinances for consistency with CAMA.

2. Also during Fiscal Year 1981-82, the Town will seek the services of a professional planning consultant to make any necessary revisions or amendments to its subdivision and zoning ordinances.

3. Throughout Fiscal Years 81 through 85, the Town Building Inspector will continue to be the chief local enforcement officer, and local coordinator of all the various permits required prior to development.

4. Also, for the next four fiscal years, the Town will continue to participate in the Federal Flood Insurance Program, and enforce its local Flood Damage and Prevention Ordinance.

5. The Building Inspector and the Mayor will continue to cooperate with the various state and Federal agencies which have

coastal management responsibilities, throughout the next four years.

6. The Planning Board, throughout the next four fiscal years, will review all proposals for development, in order to determine consistency with overall management policies and objectives, and make recommendations to the Town Board.

7. In Fiscal year 1985-86, the Land Use Plan will be updated.

C. RESOURCE PRODUCTION AND MANAGEMENT:

Ocean Isle Beach agrees with the Coastal Resources Commission in its recognition of the importance of sound management of productive resources in coastal communities. The production or maintenance of those resources, in many instances, is the economic foundation of many of these communities. Sound management policies are crucial since these economic resources are usually either extractions from coastal lands or waters, or are aesthetically valued for recreational uses or as tourist attractions. In Ocean Isle Beach, the most important resources relate to the community's appeal as a recreational, vacation and tourist area. As noted in Section I, Page 3, under "Economy", maintenance of this appeal is vital to the Town's economic future. Since it is a relatively small community, most of the resource issues listed in the CAMA Land Use Planning Guidelines (7B.0203) are not relevant in Ocean Isle Beach, and will not be addressed in this Section. Those issues which have no relevance to Ocean Isle Beach are:

-- productive agricultural lands
-- commercial forest lands, and,
-- existing and potential mineral sites.

Commercial and recreational fishing are also important resources to Ocean Isle Beach, along with tourism. The importance of the sustained vitality of these resources and the Town's policies are discussed below:

1. Recreational Resources:

Ocean Isle Beach is basically an ocean-front tourist and vacation oriented community. As such, there are no productive agricultural, forestry, or mining resource areas. The primary resource of the Town is the aesthetic and recreational appeal of the Atlantic Ocean and its beaches and the surrounding secondary waterways. Recreational opportunities such as boating, swimming, water skiing, surf boarding, and sports fishing, are not only viable resources for Ocean Isle, but also are important economic attractions for the Town. The seasonally based economy, as documented in Section I of this plan, is dependent upon the continued preservation and maintenance of these resources. Projections for the 10-year planning period indicate a growth both in the permanent and seasonal populations of Ocean Isle Beach. Both the aesthetics

and recreational opportunities of the Town are important resources which need to be protected and managed.

Ocean Isle Beach is known for its attractive, neat and clean appearance. As additional recreational opportunities such as tennis, mini-golf, and water slides are developed, maintaining the island's appearance may become an important challenge.

Possible policy alternatives which were considered include: development, adoption and enforcement of a Community Appearance Ordinance in order to help maintain the Town's appearance, and increasing garbage and trash collection and removal, particularly during the tourist season.

Actual policy choices are:

a. Ocean Isle Beach will strictly enforce its existing sign ordinance and litter law to help keep the community neat and attractive.

b. The Town will continue to support the expansion of recreational opportunities that do not seriously detract from the general aesthetics of the community, or do not cause an unsafe generation of traffic.

c. Ocean Isle Beach will consider the development, adoption and enforcement of a Community Appearance Ordinance and continue to support and encourage private beautification efforts.

d. The Town will continue to support public access to the beach strand.

2. Commercial and Recreational Fishing:

Commercial fishing in and around Ocean Isle Beach, as is the case with all of Brunswick County, is historically important. In Ocean Isle Beach, the waters of the Atlantic Intracoastal Waterway and the Eastern Channel (or Old Sound Creek), have been important shrimping, clamming, and oystering areas. The Eastern Channel is also an important component of the North Carolina Division of Marine Fisheries' Oyster Rehabilitation Project in Brunswick County. Although no detailed statistics specific to Ocean Isle Beach are available, the Division of Marine Fisheries' Wilmington office indicate that fish landings are generally good in most of Brunswick County, including the waters around Ocean Isle Beach.

Concern has been raised, however, by some fishermen about the build up of siltation deposits in Eastern Channel adjacent to the Tubb's Inlet area on the island's west end. Fishermen and Division of Marine Fisheries' personnel imply a belief that the sandy deposits in the inlet and channel areas impede the productivity of important nursery areas by covering up the oyster and clam beds.

Eventually, this leads to lower landing yields. A possible means of addressing this problem is by the dredging of the inlet which will increase the tidal flushing of the area, and clear out some of the siltation and pollution. Boating maneuverability would also increase as a result of these actions.

Any policies or actions in support of commercial fishing in the area would also be benefical to tourism in Ocean Isle Beach since many of the summer residents and visitors are avid sports fishermen. Thus, sports fishing, as a part of the overall tourist economy, is quite important.

Policy alternatives considered included: continuing support of State programs aimed at revitalizing shellfish breeding and harvesting areas, and; seeking permits to dredge the inlet channels as needed.

In recognition of the importance of the fishing industry to Ocean Isle Beach, the Town sets forth the following policy statement.

a. Ocean Isle Beach is aware that fishing areas such as the Eastern Channel (Old Sound Creek), need to have stable and sufficient flow of salt water in order to nourish the breeding estuaries, sustain adequate channel depths for the maneuvering of boats and to provide proper flushing for pollution control. Therefore, the Town will support and continue to seek carefully managed removal of siltation deposits and sand build up from the Tubb's Inlet and Shallotte Inlet areas.

3. Off-Road Vehicles:

It is important to Ocean Isle Beach that the aesthetics of the beach strand be maintained. It is also important to the Town that the integrity of the island's sand dunes be maintained. The intrusion of off-road vehicles onto the strand and dunes is viewed as being inconsistent with the management objective of maintaining the quality and character of these sensitive areas. A major policy alternative available to the Town is the development of a stricter ordinance which prohibits any off-road vehicles on the beach strand or sand dunes. Another alternative would be simply stricter enforcement of the Town's existing ordinance. In accordance with the overall management objective, the Town sets forth the following policy statement concerning off-road vehicles:

a. Ocean Isle Beach will take steps to see that the existing ordinance which prohibits the operation of off-road vehicles on any beach strand or sand dune, is strictly enforced, and that appropriate penalties for violations are imposed.

D. IMPLEMENTATION STRATEGY: RESOURCE PRODUCTION AND MANAGEMENT:

In order to implement the above policies, Ocean Isle Beach will take the following actions.

1. In Fiscal Year 1981-82, the Mayor will work with the Town Planning Board and the Building Inspector, to review, and if necessary, make recommendations for revisions to the Town's sign ordinance and litter ordinance. The Town Board will consider those recommendations.

2. In Fiscal Year 1982-83, the Mayor of the Town will seek assistance from State and Federal agencies in order to develop better information on the impact of dredging the Tubb's and Shallotte Inlets.

3. In Fiscal Year 1983-84, the Town Board will direct the Planning Board to research the steps and procedures necessary for the development and adoption of a Community Appearance Ordinance.

4. In Fiscal Year 1984-85, the Town Board will conduct a study of ways to increase the efficiency of collection and removal of trash by the Town's sanitation unit in a more cost-effective and energy conservation manner. The board may seek the assistance and service of outside planning consultants.

5. During the next four fiscal years, the Town Board will continue to encourage the efforts of private citizen's groups, such as the Ocean Isle Beautification Committee, by providing limited financial assistance toward the purchase of seeds or shrubbery for community planting projects.

6. Ocean Isle will continue to seek permits for the dredging of the Eastern Channel area.

E. ECONOMIC AND COMMUNITY DEVELOPMENT:

The following issues will not be addressed in this section:

-- redevelopment of older areas,
-- types and locations of desired industry, and
-- energy facility siting.

The economic vitality of Ocean Isle Beach, as stated previously, relates directly to tourism. Second-home sales and cottage rentals, which attract thousands of visitors each summer, along with increasing numbers of day visitors from inland communities, are important elements to the island's economy.

The land development pattern in Ocean Isle Beach, as shown on the attached Land Use Map is mostly residental. Nearly all of the commercial development is located along N.C. 904. Although both the permanent and seasonal populations are projected to increase, the overall land development pattern will likely remain the same.

Ocean Isle Beach, incorporated in 1959, is a relatively "young" community. Because of this factor, and the fact that the island was developed as and remains a family-oriented tourist center, some of the Economic and Community Development issues listed in the State Land Use Planning Guidelines have little or no relevance to Ocean Isle Beach.

As it is very important that the atmosphere and character of a quiet, relaxing family beach be maintained, Ocean Isle Beach is not interested in developing any manufacturing industries within the Town. Also, intense commercial developments, beyond that necessary to serve tourists, will not be encouraged. Residential development, both multi-family and single-family are regarded as desirable for the Town, as long as no major or irreversible damage threatens any environmentally sensitive area. Single-family detached dwellings are the predominant residential-type in Ocean Isle Beach, although more multi-family units are being developed or proposed. High-density, high-rise developments will not be encouraged during the planning period. Such developments are viewed as being inconsistent with the aesthetics of the island.

Important considerations affecting community and economic development in Ocean Isle Beach are the continued provision of adequate water supplies, and the development of a sanitary and environmentally sound waste water disposal system. As noted, the Town has already begun developing wells on the mainland, and is seeking federal funding to develop a central sewage collection and disposal system. Also, as was noted in Part C, 1, Pages 21-25, certain soil types on Ocean Isle could also pose some limitations to development. Structural foundations and the unsuitability of septic tank placement are considerations concerning soils conditions.

The constraints imposed by water, sewer, and soils limitations, are important policy issues which will affect the economic and community development of Ocean Isle Beach during the 10-year planning period. Another issue which the Town needs to address during the period is the use of land in the area adjacent to its northern, northwestern, and northeastern boundaries. The area is currently composed mostly of residential uses, including conventional and mobile home subdivisions, and is not incorporated. Development in this area, because of its proximity to Ocean Isle Beach, could affect the aesthetics of the "entrance" to the Town as visitors cross the causeway on N.C. 904. Ocean Isle Beach, therefore, may want to extend its extraterritorial jurisdiction to include this area. The Town could then exercise its land use controls in this area.

Ocean Isle Beach is very much concerned about the future growth in economic and community development. As the population gradually increases, the economic base will probably also expand, more housing will be developed, and increased pressures will be placed on existing community facilities. Sound public investment decisions will also have to be made. All of these issues and others are important in the formulation of land use policies. Re-

levant issue areas and particular policy statements are discussed below:

1. Local Committment to Service Provisions:

The major service provided by Ocean Isle Beach is water. The current water service area, according to the Town's Water Distribution Plan, covers virtually the entire developable portion of the island. Water service is readily available to all new development. The current water system's capacity is projected to sustain population growth throughout the next 10-years (See Table 9, Page 29). As the projected growth takes place (mostly residential development), the Town is committed to providing water service to these areas according to it's current water expansion policies (See Page 12). The Town hopes to eventually develop a centralized sewage collection and disposal system. Whenever such a system is developed, Ocean Isle Beach will also provide sewer service to newly developing and older developed areas.

It is also important that other services and facilities, such as police and fire protection also be evaluated for necessary changes as the population increases.

A major policy alternative for the Town would be to limit, through the enactment of local ordinances, future development to the capacity of all community facilities. Another alternative would be the use of local ordinances to guide development away from certain areas until a central sewage collection and disposal system is developed.

Actual policy choices are:

a. Residential and Commercial development, in accordance with provisions of the Ocean Isle Beach Zoning and Subdivision Ordnances, will continue to be encouraged, as long as State Health Regulations for septic tank placement are met.

b. The Town will continue to seek financial assistance to develop a central sewage collection and disposal system on the island, in order to avoid possible problems resulting from sole reliance upon septic tanks for all development.

c. Ocean Isle Beach will also seek to develop more efficient and effective means of solid waste disposal, in order to minimize trash and garbage collection problems during the tourist season. (See Policy Statement D, 4 on Page 47).

d. Ocean Isle Beach will continue to support efficient protective and emergency services for its residents by seeking additional training for fire and rescue personnel. Also, in order to facilitate efficiency in locating indi-

vidual properties by emergency personnel, the Town will develop a street and house-numbering system.

2. Types of Urban Growth Patterns:

The development pattern of Ocean Isle Beach is, as previously pointed out, dominated by residential development. Currently, no mobile homes are allowed within the Town's jurisdiction. The first and second row of interior developable lots from the ocean front, is almost exclusively composed of single-family and multi-family homes. It is the Town's intentions, as reflected in its zoning ordinance and zoning map, to discourage commercial-type developments in areas near the ocean-front. Motels or apartment rentals are commercial in nature, but are allowed in the Town's zoning ordinance for these areas because the uses are predominantly residential. Low-rise residential development, both multi-family and single-family are desirable near the ocean front areas. Near the center of the island, along the finger canals, single-family development is considered the most practical type of use. Most of the lots there are relatively small and portions of this area cannot support septic tank placement without the addition of suitable fill material. Development with higher density levels than single-family or two-family uses may not be desirable in the finger canal areas because of possible effluent intrusion into the canals. No such intrusion, however, has been documented.

Also, the extreme eastern end of the island, which is more subject to the effects of inlet erosion (adjacent to Shallotte Inlet), is more suitable for single-family residential development because of its lower density. Carefully placed single-family structures would minimize the risk of loss of life or property in this area. The area, however, is generally safe for development.

Should Ocean Isle Beach choose to exercise its extra-territorial jurisdiction across the Intracoastal Waterway, then a mixture of uses, including residential subdivisions (conventional and mobile homes), highway commercial, and perhaps neighborhood commercial would be considered allowable uses. However, a more detailed analysis needs to be done for this area.

Policy alternatives which have been considered in order to achieve the desired urban growth patterns include; amending the existing zoning ordinance to insure that no incompatible uses develop; amending the subdivision ordinance to impose stricter design standards on development (particularly if extra-territorial jurisdiction is exercised), and continued enforcement of the existing ordinances, along with support of the CAMA permit process. Actual policy choices are:

a. Since it is the desire of Ocean Isle Beach to avoid incompatible land uses, the Town will continue to enforce its current ordinances and local building permit program, to help achieve a desirable balance between commercial and residential development. The Town will also continue to support the State CAMA per-

mit process and State Health Regulations regarding septic tank placement.

3. Committment to Federal and State Programs:

Ocean Isle Beach recognizes the importance of the operation of State and Federal programs, some of which provide necessary improvements for the island community. The State Department of Transportation road and bridge improvement program has been very helpful to Ocean Isle Beach. By mid-1982, a new two-lane bridge will be constructed across the Intracoastal Waterway with State and Federal assistance. This will greatly facilitate traffic flows between the island and the mainland by replacing the existing single-lane bridge. The U.S. Army Corps of Engineers provide valuable assistance by dredging and maintaining the Atlantic Intracoastal Waterway. The Division of Marine Fisheries Oyster Rehabilitation project in the Eastern Channel area is a valuable aid to both sports and commercial fishing. Regulations of CAMA and the State restrictions on septic tank placement are useful in helping protect environmentally sensitive areas. Ocean Isle Beach will continue to support these programs, and since these programs are considered useful, there are no viable policy alternatives to their support.

4. Assistance to Channel Maintenance and Beach Nourishment:

Most of the Town's policies concerning channel maintenance were addressed in Part C, 2, Page 47, of this section. Ocean Isle Beach is supportive of the Corps of Engineer's maintenance of the Intracoastal Waterway and is committed to providing suitable spoil placement sites (See Part C, 2, Page 27), Section I). Ocean Isle Beach is generally supportive of keeping new development out of the Corps 1,000-foot easement along the AIWW, however, the Town believes that existing structures in the easement area should be recognized and protected.

Beach nourishment is also an important concern of Ocean Isle Beach. The Town recognizes that one of the major threats to any beach is erosion, which is by and large a natural occurrence. Ocean Isle Beach is committed to beach nourishment projects in the area and has entered into an agreement with the Corps of Engineers so that all suitable dredged sand can be deposited on the beach as artificial renourishment. Also, in early 1981, the Town supported a local renourishment project which included the planting of 60,000 sprigs of American Beach grass on the west end of the island. These plantings when mature, will help to maintain the sta-

bility of the sands. Funds for these planting came from private sources.

One policy alternative for beach nourishment would be for the Town to conduct its own renourishment programs. However, the financial resources of the Town will not allow for such an undertaking. Specific policies for channel maintenance and beach nourishment are:

a. Ocean Isle Beach will continue to provide suitable spoil sites for dredging of the Intracoastal Waterway by the Corps of Engineers. New development will not be encouraged in the existing spoil easement area.

b. The Town will seek Federal and State assistance in support of beach nourishment projects, and encourage local private efforts.

5. Tourism:

The importance of tourism to Ocean Isle Beach has been sufficiently addressed in other parts of this plan, and bears no need for repetition here. (See Part E, "Economic and Community Development", Page 47). The natural resources of the beach along the Atlantic Ocean and inland waterways which attract an influx of thousands to this island community each summer, are vital generators of income for many businesses. The tourist season also provides employment for some island residents and for some mainland residents of Brunswick County as well. According to the Travel and Tourism Division, North Carolina Department of Commerce, in 1979, travel and tourism accounted for $16,740,000 in expenditures in Brunswick County. Although detailed figures are not available for Ocean Isle Beach, relative to its size, the island community probably generated a respectable proportion of the total. To simply say that tourism is important in Ocean Isle Beach, would be a severe understatement. Policy alternatives concerning support of tourism are few in an area where it forms the economic base. In fact, all of the other policy statements under Economic and Community Development, relate to tourism. The following policy statement is hereby set forth:

a. Ocean Isle Beach will continue to support and promote tourism as its main economic base. The development of non-intensive recreational and commercial land uses will be encouraged in order to enhance services for the public.

6. Beach and Waterfront Access:

Relatively free and open access to the ocean front and other waterways is an important consideration for any beach community. This is a fact which Ocean Isle Beach recognized in the initial stages of its development. The developer of the community dedicated public easements to provide walkovers to the beach and thus

free and open access to the strand. The initial plans called for the development of the easement areas as the seasonal and permanent populations increased. There are 25 of these public easements and seven are currently maintained. These seven walkovers are located near the island's more densely developed areas and presently have clay bases. As the Town continues to grow, more easement access ways will be developed and maintained by the Town. All 25 access ways, however, are currently opened.

Access to other water areas mainly for sports fishing is also open to the public. There is one pier on the island, which provides both public parking and access for pier fishing.

Policy alternatives include, seeking State and/or Federal assistance to develop more public access ways such as developing more of the existing 25 easements or using local revenues to develop more access ways. The Town's policy is set forth as follows:

a. Ocean Isle Beach will continue to support free and open public access to the ocean front and other waterways by seeking State and/or Federal financial assistance to develop beach walkovers and boat access ramps.

F. IMPLEMENTATION STATEGY: ECONOMIC AND COMMUNITY DEVELOPMENT:

In order to implement the above policies, Ocean Isle Beach will take the following actions:

1. In Fiscal Year 1981-82, the Town Board will develop an official street and house numbering system in order to facilitate locating residences in emergency situations and in order to develop a uniform address system.

2. In Fiscal Year 1982-83, Ocean Isle Beach will seek funding assistance to develop more public waterfront access ways.

3. In Fiscal year 1985-86, Ocean Isle Beach will review all of its policies on Economic and Community Development and revise them as necessary.

G. CONTINUING PUBLIC PARTICIPATION:

Involving the citizens in planning and govermental discussions which lead to decisions which affect them, is an important matter recognized by Ocean Isle Beach. In the development of this

SECTION III

LAND CLASSIFICATION SYSTEM

plan, a Citizen Participation Plan was developed, a series of questionnaires distributed, and public meetings were conducted. All of these activities were designed to give citizens an opportunity to provide input into the planning and policy formulation process. Efforts to involve the Town's citizenry will continue throughout the planning period.

Throughout the formulation of this plan, regular meetings were conducted between the planning consultant and the Planning Board. The Planning Board, in accordance with the Citizen Participation Plan, served as the main citizen advisory group. Currently this Board is composed of three of the Town's residents. Ocean Isle has demonstrated its desire to keep citizens informed of governmental issues by mailing out copies of the minutes of the Town Board meetings to all year-round residents. This is a practice not duplicated in many communities. Ocean Isle Beach is committed to keeping its citizens informed and giving them opportunities to participate in the planning and decision making process. Policy alternatives include using public announcements or notices to inform citizens of pending land use planning or development decisions, and/or expansion of the size of the Planning Board. Policy choices are:

a. Ocean Isle Beach believes that its Planning Board, which has regularly scheduled meetings, all of which are open to the public, provide adequate opportunities for citizens to air their views concerning planning matters. The Board will continue to be maintained at its present size.

b. Ocean Isle will continue its policy of informing citizens of governmental issues and decisions by sending out a summary of the minutes of Town Board Meetings to all permanent residents.

c. The Town will use published public notices to inform citizens of pending decisions involving land use planning matters.

H. IMPLEMENTATION STRATEGY: CONTINUING PUBLIC PARTICIPATION:

In order to implement the above policies, Ocean Isle Beach will take the following actions:

1. During the next four Fiscal Years (1981-85), the Town Board will oversee the implementation of the policy statements listed in G, a, b, and c, above.

I. ADDITIONAL SPECIFIED LOCAL ISSUES:

The Coastal Resources Commission has specified that certain issues, which it viewed as having particular significance in Ocean Isle Beach, be addressed in this land use plan. These issues are: (1) AIWW Easements, and (2) Inlet Stabilization/Ocean Front Ero-

sion. Discussion and policy implications for these issues were presented under other policy statement areas. For appropriate references, these two issues will be discussed again below:

1. AIWW Easements:

The issue of the U.S. Army Corps of Engineers 1,000 foot maintenance easement along the Atlantic Intracoastal Waterway was first discussed in Part C, 2, Page 27, of Section I. Specific policy discussions on the issue were presented in Part E, 4, Page 51 and Part E.4.a. Page 52, Section II, under "Channel Maintenance" and "Implementation Strategy". In summary, this issue has been resolved between the Corps and the Town. (See Page 27).

2. Inlet Stabilization/Ocean Front Erosion:

Detailed discussions on this issue were presented in several parts of this land use plan. Specific definitions and policy discussions may be found in Parts A, 3, a, and c, of this section under "Resource Protection: Ocean Hazard AECs", Page 40 through 41. Note particularly the discussions of "Ocean Erodible Areas", and "Inlet Hazard Areas" on Page 40, and the policies under Part A, 4, Page 41.

SECTION III:
LAND CLASSIFICATION SYSTEM

The land classification system provides a uniform way of looking at how the use of land interacts with environmentally sensitive areas and with the development needs of a particular locality. It is not a strict regulatory device in the sense of a zoning ordinance or zoning map. It represents more of a tool to aide in understanding the relationships between various land use categories and how these relationships help shape local policy. Particular attention is focused on the intensity at which land is used and the level of services needed to support that intensity. The regulations for the Coastal Area Management Act state:

> "The land classification system provides a framework to be used by local government to identify the future use of all lands in each county. The designation of land classes allows the local government to illustrate their policy statements as to where and to what density they want growth to occur, and where they want to conserve natural and cultural resources by guiding growth.: (7B.0204) (a)

The five land classifications, along with a land classification map are therefore intended to serve as a visual representation of the policies stated in Section II of this plan. The map depicting these classifications must be as flexible as the policies that guide them. (See the attached Land Classification Map, Map5.)

Only three of the Coastal Resources Commissions' five land classifications and one sub-class, are relevant to the land development policies of Ocean Isle Beach. They are identified and described below.

A. DEVELOPED

The developed class of land use provides for continued intensive development and redevelopment of existing cities. Areas to be classified as "developed" include lands currently developed for urban purposes or approaching a density of 500 dwellings per square mile that are provided with usual municipal or public services including at least public water, sewer, recreational facilities, police and fire protection. Areas which exceed the minimum density but which do not have public sewer service may best be divided into a separate class to indicate that although they have a developed character, they will need sewers in the future.

Within Ocean Isle Beach, the areas complying with the above definition, except for the provision of central sewage service, include: the commercial area on N.C. 904 north of the Intracoastal Waterway; the residential area along the first eight finger canals near the island, and; the first and second row of lots along the oceanfront, east of N.C. 904 to Lumberton Street. Lots in these areas are nearly completely developed, and all of the undeveloped acreage will likely be developed by or before 1990.

B. TRANSITION

Transition land is classified as those lands providing for future intensive urban development within the ensuing ten years on lands that are most suitable and that will be scheduled for provision of necessary public utilities and services. They may also provide for additional growth when additional lands in the developed class are not available or when they are severely limited for development.

Lands classified "transition" may include:

1. lands currently having urban services, and
2. other lands necessary to accommodate the urban population and economic growth anticipated within the planning jurisdiction over the next ten years.

Lands classified for the latter reason must:

a. be served or be readily served by public water, sewer, and other urban services including public streets, and
b. be generally free of severe physical limitations for urban development.

The "transition" class should not include:

1. lands of high potential for agriculture, forestry, or mineral extraction, or land falling within extensive rural areas being managed commercially for these uses, when other lands are available;
2. lands where urban development might result in major or irreversible damage to important environmental, scientific, or scenic values; or
3. land where urban development might result in damage to natural systems or processes or more than local concern, and
4. lands where development will result in undue risk to life or property from natural hazards or existing land uses.

The lands in Ocean Isle Beach that will be classified "transitional" are those areas adjacent to the currently developed areas on the island. This includes the land area around the remaining finger canals (currently unopened), all of the remaining platted lots on the island, and the unsubdivided land on the west end.

The relationship between the "developed and transition" classification is usually an important one. The first class is meant to define the already intensively developed areas and/or those areas where intensive urban-type development is likely to occur. Transitional lands are those areas where public investment decisions will be required to provide the necessary urban services. These become important areas to closely monitor. The Coastal

Resources Commission has further clarified this relationship as described below.

The Developed and Transition classes should be the only lands under active consideration by a county or municipality for intensive urban development requiring urban services. The area within these classes is where detailed local land use and public investment planning will occur. State and federal expenditures on projects associated with urban development (water, sewer, urban street systems, etc.) will be guided to these areas. Most of the "transitional" lands in Ocean Isle Beach already have access to the Town's water system and are included in the municipal service area (i.e., police and fire protection).

C. CONSERVATION

The "conservation" class provides for effective long-term management of significant limited or irreplaceable areas. This management may be needed because of its natural, cultural, recreational, productive or scenic values. This class should be limited to lands that contain: major wetlands; essentially undeveloped shorelands that are unique, fragile, or hazardous for development, necessary wildlife habitat or areas that have a high probability for providing necessary habitat conditions; publicly owned water supply watersheds and aquifers; and forest lands that are undeveloped and will remain undeveloped for commercial purposes.

In Ocean Isle Beach, the lands described as the following Areas of Environmental Concern, are listed in this classification; Coastal Wetlands (the unplatted, undeveloped lands south of the Intracoastal Waterway, and north of Old Sound Creek); Estuarine Shorelines, (excluding areas adjacent to already-developed lots); Inlet Hazard Areas, and the Ocean Erodible Area.

D. CONSERVATION SPOIL

This is a sub-class of conservation and will be used to classify lands which would generally be suited for use as spoil areas for the maintenance of major waterways, but not for other uses. This would include areas used, or to be used by the U. S. Army Corps of Engineers.

E. OTHER CLASSIFICATIONS

1. Community

The "community" classification provides for clustered land uses to meet housing, shopping, employment, and public service needs within the rural areas a County. It is usually characterized by a small grouping of mixed land uses which are suitable and appropriate for small clusters of rural development not requiring municipal sewer service.

2. Rural

The "rural" class provides for agriculture, forest, management, mineral extraction and other low intensity uses on large sites including residences where urban services are not required and where natural resources will not be unduly impaired. These are lands identified as appropriate locations for resource management and allied uses: land with high potential for agriculture, forestry or mineral extraction; lands with one or more limitations that would make development costly and hazardous; and lands containing irreplaceable, limited, or significant natural, recreational or scenic resources not otherwise classified.

SECTION IV

RELATIONSHIP BETWEEN POLICIES AND LAND CLASSIFICATION

SECTION IV
RELATIONSHIP OF POLICIES AND LAND CLASSIFICATIONS

After the Land Classification System is developed, the Coastal Resources Commission requires each land use plan to relate the Policy Section to the land classification map and to provide some indication as to which land uses are appropriate in each class.

A. DEVELOPED AND TRANSITION CLASSES

As discussed in Section I, Analysis of Existing Conditions, the development of both single-family and multi-family structures is likely to continue in Ocean Isle Beach. The developed and transition classes were specifically designed to accommodate these projected more intensive developments and land uses. This will include commercial uses, parks and open space, community facilities and transportation. Hazardous or offensive uses such as power plants, airports and storage facilities will not be in these classes. Where identified constraints such as poor soils, AIWW easements, horizontal well fields, or other fragile areas occur within these classes, the areas will not be considered as Developed or Transition. (See "Constraints" pp. 20-26).

B. CONSERVATION AND CONSERVATION SPOIL CLASSES

The Conservation Class is designated to provide for effective long-term management of significant limited or irreplaceable areas which include wetlands, undeveloped shorelines that are unique, fragile, or hazardous for development, wildlife habitat areas, publicly owned watersheds and acquifers and undeveloped forest lands and cultural and historical sites. In Ocean Isle Beach, development should be restricted to water-dependent uses such as piers, bulkheads, marinas, etc. Policy Statements under Resource Protection, and Resource Production and Management issues, address the Town's intentions concerning the Conservation Class.

The Conservation Spoil Class will apply to lands which must be managed on a long-term basis, but are suitable as spoil sites for the maintenance of major waterways, including the Atlantic Intracoastal Waterway by the Corps of Engineers.

APPENDIX

APPENDIX I
DEFINITIONS OF TERMS

For the purpose of interpreting parts of this plan, certain words or terms, as used herein, shall have the meanings as indicated below:

A. High Density Development: Shall refer to intensive land development whereby the number of dwelling units exceed 1,000 dwellings per square mile, or the population density is in excess of 12.0 persons per acre.

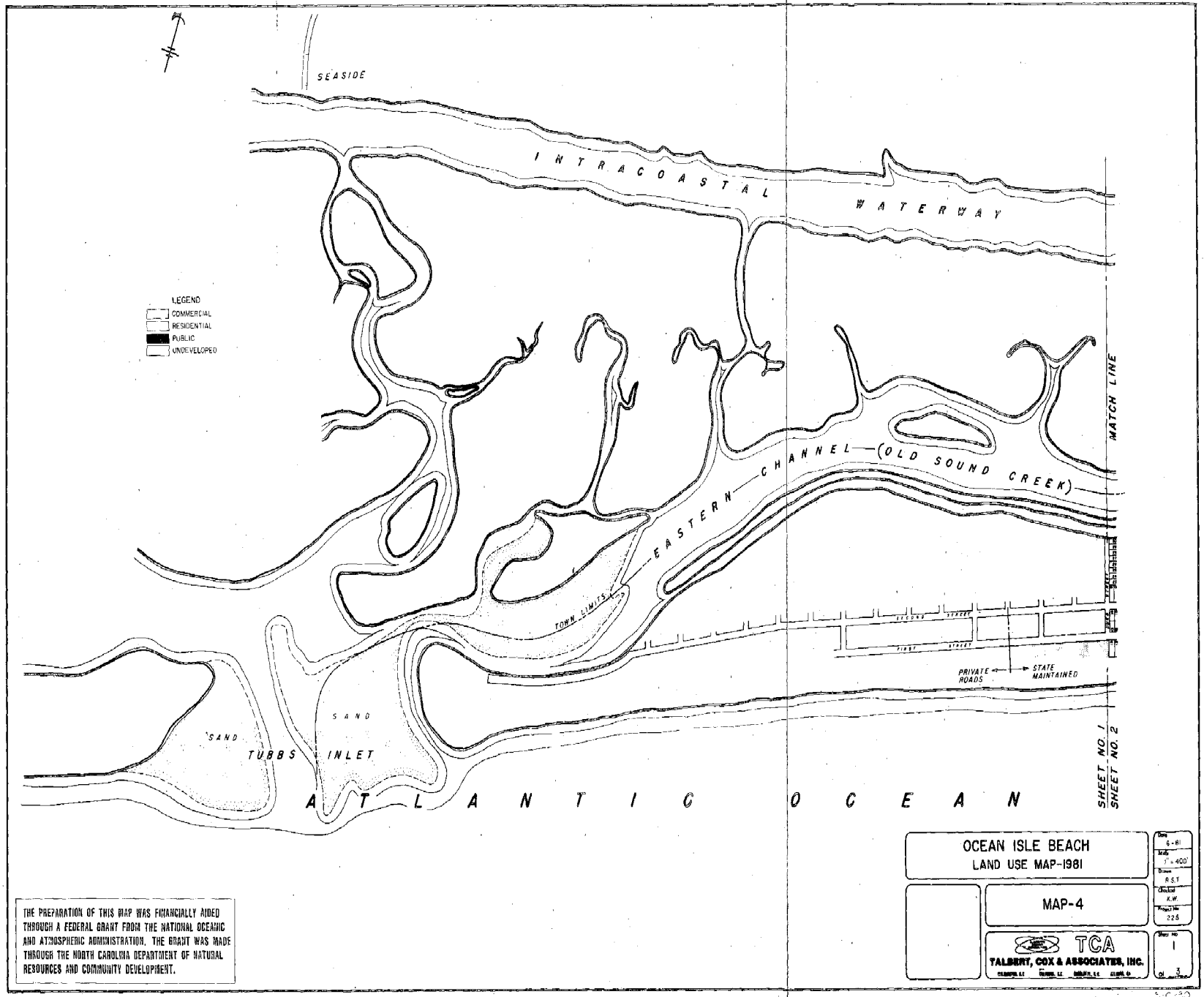
B. High-Rise Development: Shall refer to residential or commercial structures which exceed two normal stories above the base elevation building level, as contained in the Ocean Isle Beach Zoning Ordinance.

C. Low-Rise Development: Shall refer to residential or commercial development which do not exceed two normal stories above the base elevation building level, as contained in the Ocean Isle Beach Zoning Ordinance.

D. Multi-family Development: Shall refer to residential structures designed for or occupied by three or more families, with separate housekeeping and cooking facilities for each unit, including apartments and group housing.

E. Single-Family Development: Shall refer to residential structures designed for or occupied exclusively by one family, usually unattached to other dwelling units.

F. Two-Family Development: Shall refer to residential structures, designed, constructed or reconstructed and used for two dwelling units that are connected by a common load bearing wall.



OCEAN ISLE BEACH
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MAP-4

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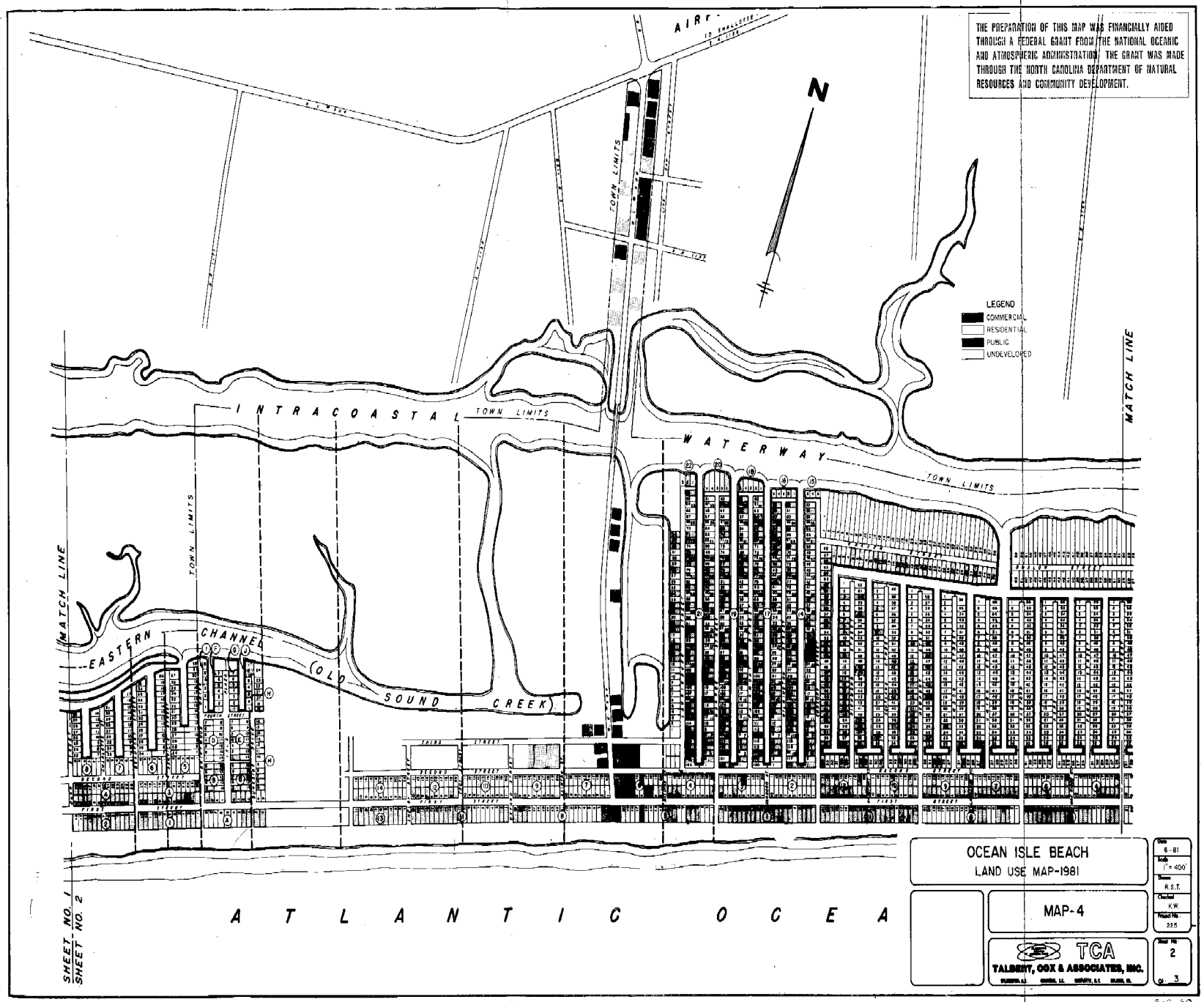
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PUBLIC
UNDEVELOPED
TOWN LIMITS
INTRACOASTAL WATERWAY
MATCH LINE
EASTERN CHANNEL (OLD SOUND CREEK)
ATLANTIC OCEAN
SHEET NO. 1
SHEET NO. 2
OCEAN ISLE BEACH
LAND USE MAP-1981
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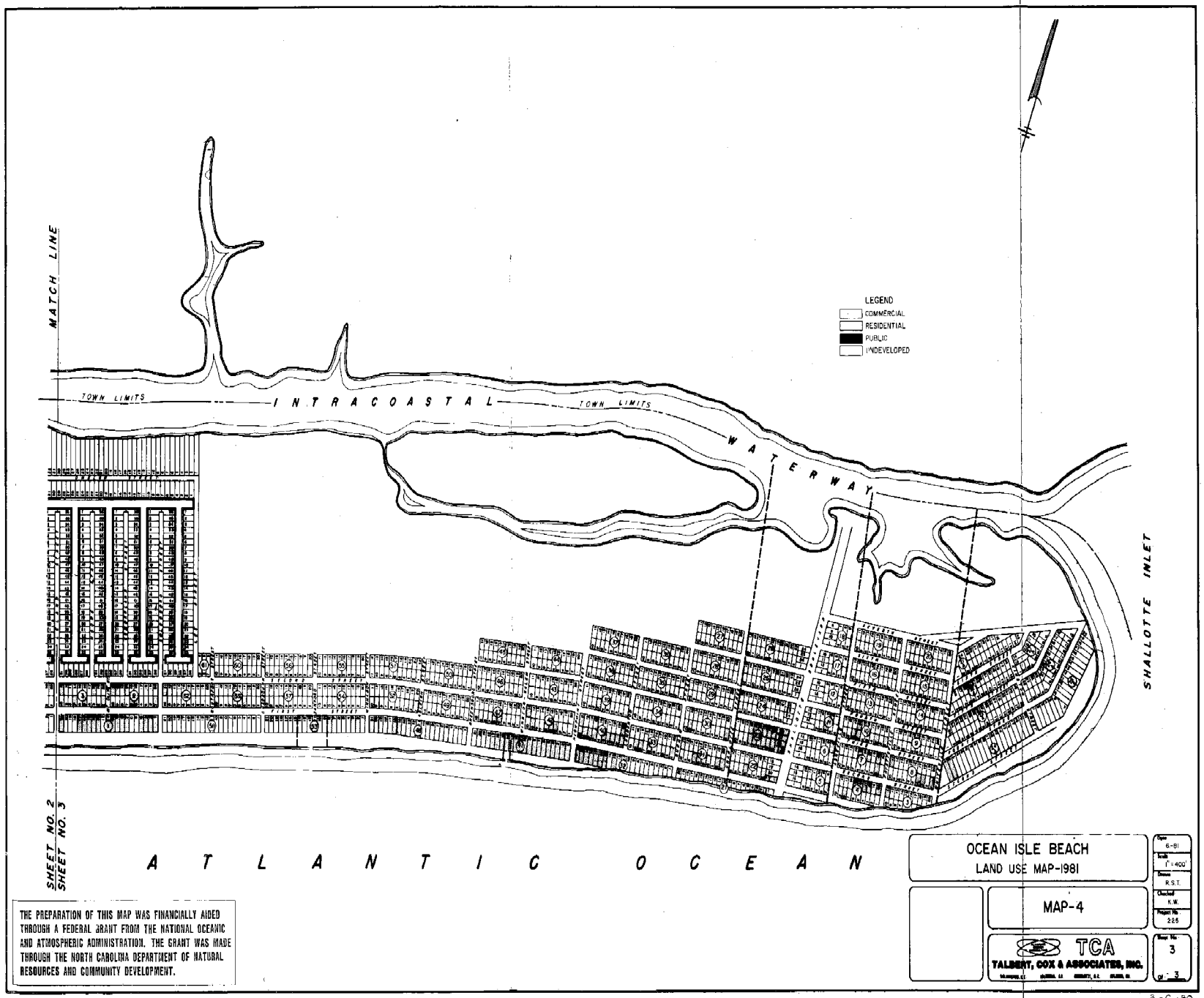

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OCEAN ISLE BEACH
LAND USE MAP-1981

MAP-4

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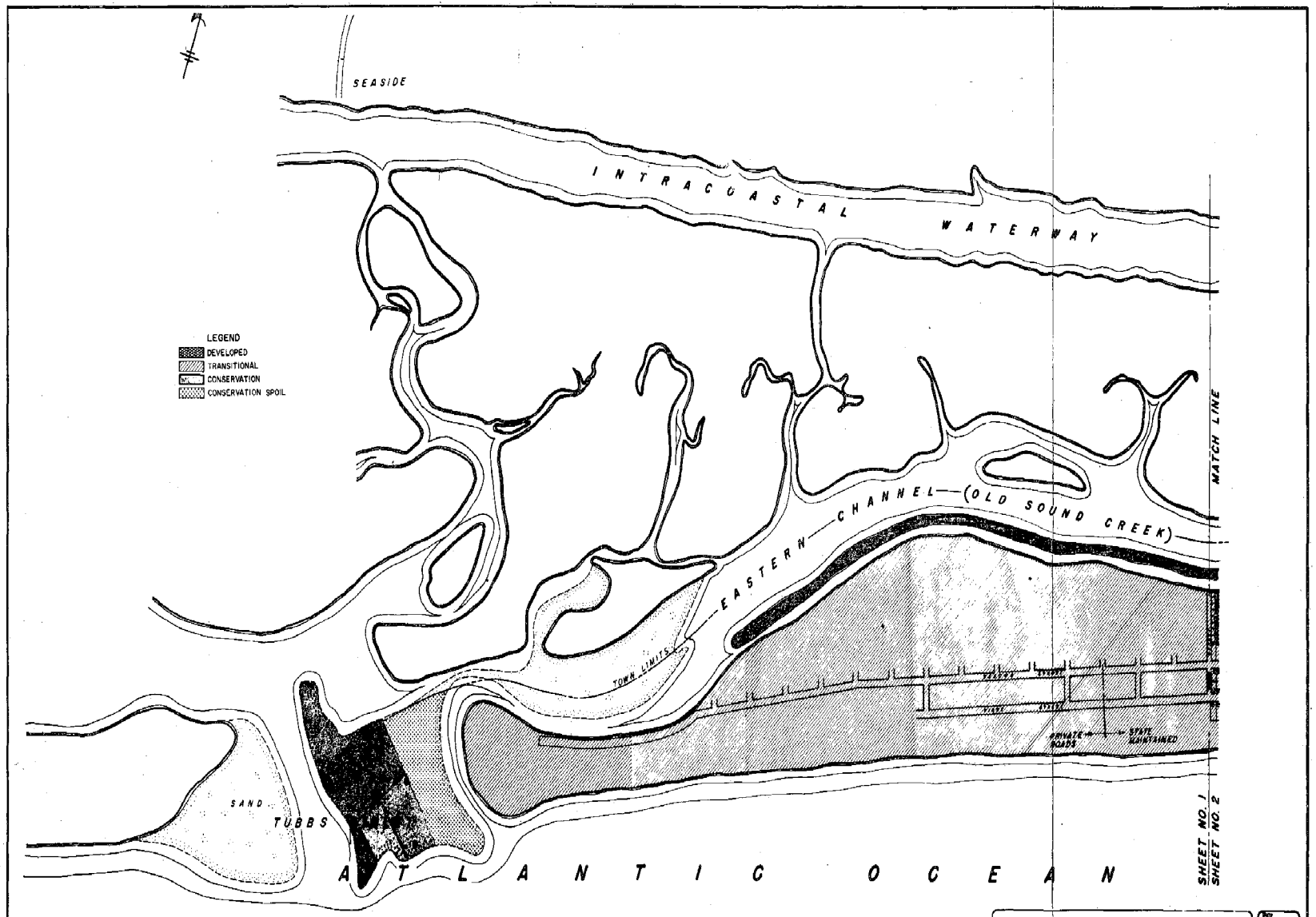

OCEAN ISLE BEACH
LAND CLASSIFICATION MAP-1981

MAP-5

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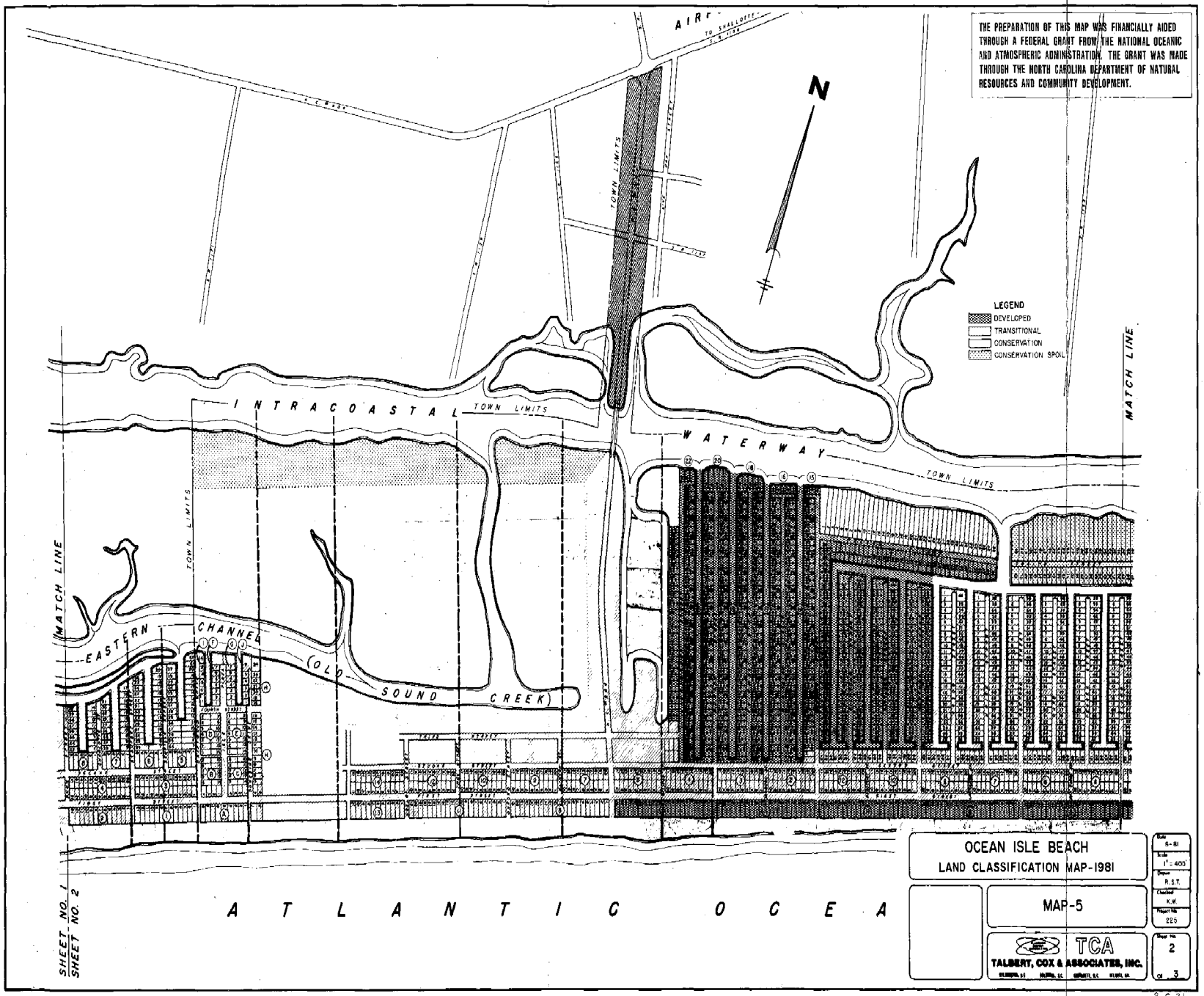
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SHEET NO. 2
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LAND CLASSIFICATION MAP-1981
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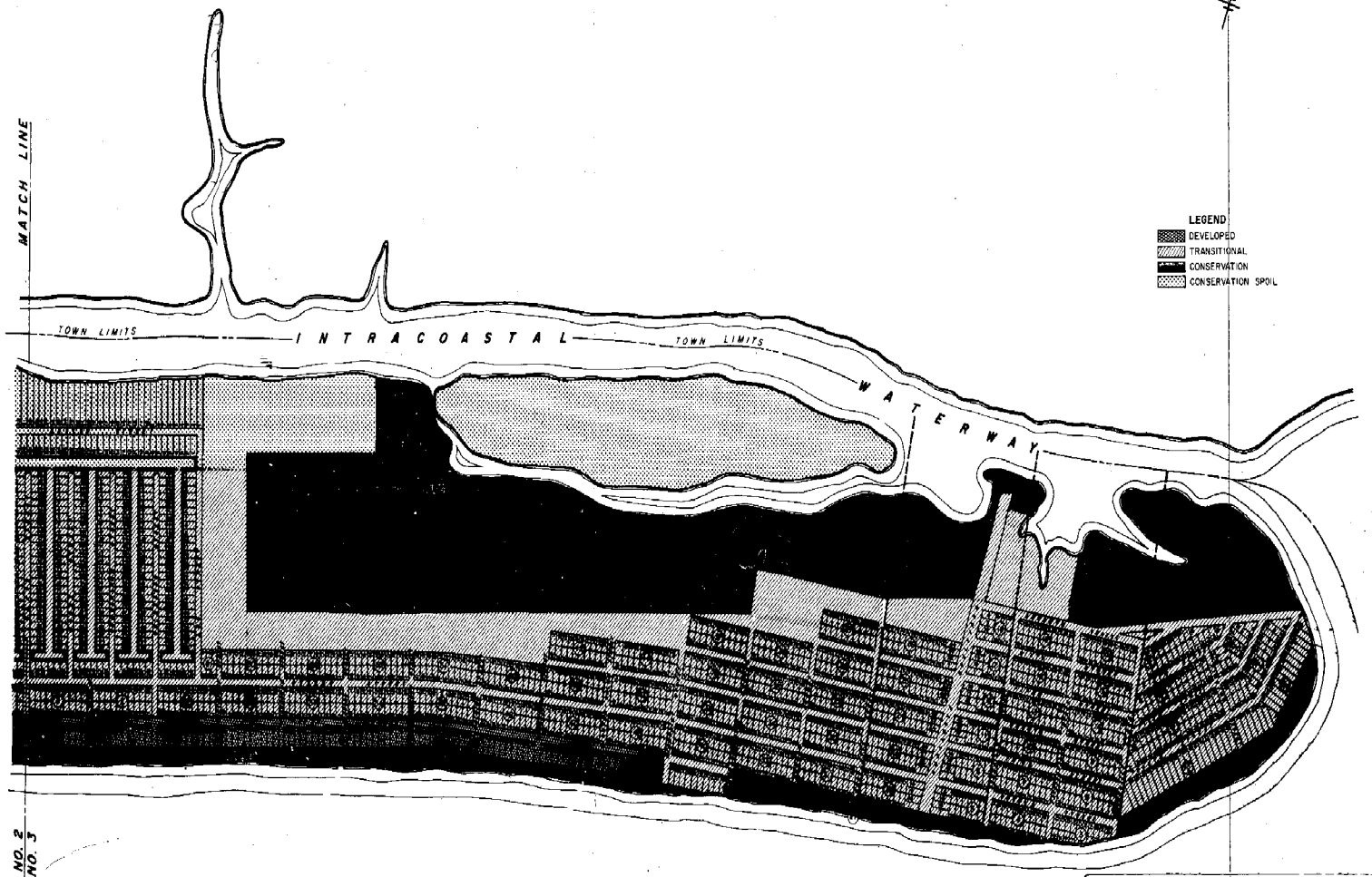

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OCEAN ISLE BEACH
LAND CLASSIFICATION MAP-1981

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